

San Luis Rio Colorado Project Final Environmental Impact Statement

DOE/EIS-0395

JULY 2007



COVER SHEET

LEAD FEDERAL AGENCIES: U.S. Department of Energy (DOE), Western Area Power Administration (Western), and Office of Electricity Delivery and Energy Reliability (OE)

COOPERATING AGENCIES: U.S. Department of the Navy (Navy), U.S. Bureau of Reclamation (Reclamation), U.S. Bureau of Land Management (BLM), City of Yuma

TITLE: San Luis Rio Colorado Project Final Environmental Impact Statement, DOE/EIS-0395

LOCATION: Yuma County, Arizona

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ABSTRACT: DOE has received applications and requests of approval from North Branch Resources, LLC (NBR) and Generadora del Desierto, S.A. de C.V. (GDD), for the proposed San Luis Rio Colorado Project (Proposed Project). GDD and NBR (collectively termed the Applicants) are each wholly owned subsidiaries of North Branch Holding, LLC. GDD applied to OE, an organizational unit within DOE, for a Presidential permit to construct, operate, maintain, and connect a double-circuited 500,000-volt (500-kilovolt [kV]) electric transmission line across the United States-Mexico international border. NBR submitted a request to Western, another organizational unit within DOE, for interconnection of the proposed transmission line to Western's Gila Substation. The proposed transmission line would originate at the proposed San Luis Rio Colorado (SLRC) Power Center in Sonora, Mexico, interconnect with Western's existing Gila Substation, and continue to Arizona Public Service Company's (APS) North Gila Substation. The Proposed Project would require expanding Gila Substation and additional equipment at North Gila Substation; all of the proposed transmission components would be located in Yuma County, Arizona. Depending on the route ultimately selected, the total length of the transmission system within the United States would be approximately 26 miles; 21 miles from the international border to Gila Substation and 5 miles from Gila Substation to North Gila Substation. Portions of the proposed transmission line would cross lands owned and/or managed by Reclamation; Navy, a branch within the U.S. Department of Defense; State of Arizona lands; and private lands. In Mexico, GDD plans to construct and operate the SLRC Power Center, a new 550-Megawatt (MW) nominal (605-MW peaking) natural gas-fired, combined-cycle power plant located approximately 3 miles east of San Luis Rio Colorado, Sonora, Mexico, and about 1 mile south of the international border. While this facility is not subject to the United States' regulatory requirements, DOE evaluated impacts within the United States from its operation as part of its impact analysis. Western must consider approving the interconnection request. OE must consider approving the Presidential permit. Reclamation and Navy must consider granting rights-of-way or easements across the lands they manage.

DOE has prepared this environmental impact statement (EIS) to analyze the environmental impacts of the proposed action and the range of reasonable alternatives, including the "No Action" alternative. DOE will use the EIS to ensure that the environmental information needed for informed decision-making is available. Western will issue a decision, in the form of a Record of Decision, no sooner than September 4, 2007.

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BACKGROUND

Background, EIS Distribution, and How to Use this Document

Background: This document, together with the previously published draft environmental impact statement (Draft EIS), constitutes the - final environmental impact statement (Final EIS) San Luis Rio Colorado Project. Hearing transcripts and copies of written comments received as a result of the public review process are included in **Appendix A**.

Public and agency comments received during the public comment period (November 9, 2006 – January 10, 2007) resulted in the need to clarify some information in the Draft EIS, and to provide expanded and/or additional information to fully address comments. The comments received did not call for additional alternatives or require substantive revisions to the environmental analysis in the Draft EIS, but instead required augmentation of the material in the Draft EIS. For this reason, the full text of the draft has not been reprinted, and this abbreviated Final EIS serves an addendum to the Draft EIS. The materials in this addendum, combined with the Draft EIS, serve together as the complete Final EIS. Copies of the Draft EIS or this addendum may be obtained from the Western Area Power Administration (Western) from the contact provided on the cover sheet at the beginning of this document. This addendum contains the following parts:

- Cover Sheet – Includes the responsible agency, contact persons, and abstract.
- Background – Describes the elements of the abbreviated Final EIS.
- Comment and Response – Response to comments, and shows corrections, revisions, and additions to the Draft EIS for the San Luis Rio Colorado Project.
- References – References for supplemental information included in the responses.
- Appendix A – Draft EIS Comment Compilation Package.
- Appendix B – Underground Transmission Technologies Report and PDC Qualifications.
- Appendix C – Scoping Meeting and Public Hearing Notices.
- Appendix D – Agency Consultation.

EIS Distribution: The officials, agencies, tribes, and organizations listed in the consultation and coordination section of the Draft EIS are receiving a copy of this document. All individuals who requested the Final EIS and those who commented on the Draft EIS, for whom addresses were provided, will receive a copy of this document. To obtain a printed or electronic copy of the EIS or find the location of agencies or libraries that have copies, contact the Western office as on the cover sheet.

How to Use this Document: This abbreviated Final EIS is meant to be used in conjunction with the Draft EIS for the San Luis Rio Colorado Project (Proposed Project). The two documents, together, make up the Final EIS for the Proposed Action. For ease of reference, corrections to the EIS text are noted by page and paragraph number in Response #21 Corrections. Material within a paragraph that has been deleted is shown by a ~~strikeout~~ and added

text is underlined. Typographical, spelling, and punctuation errors are not changed unless necessary to make the passage understandable.

As previously stated, Appendix A contains a compilation of comments received on the Draft EIS; it also contains a response tracking table. Within Appendix A, the comment and response tracking table is presented first to make it easier to find the response topic(s) that correspond to specific comments. Columns within the table include: comment reference number, commenter, comment type, response number, and response treatment. Following the table is a compilation of the Draft EIS comments received as of January 29, 2007. The comment documents are grouped by Federal agency, State of Arizona agency, organization, and public. Within the Federal agency, State of Arizona agency, and organization sections, the comment documents are listed in alphabetical order by agency or organization name. Within the public section, the transcripts from the public hearings are listed first, followed by comments received via fax, mail, or email listed in alphabetical order by last name of the commenter. To protect the privacy of individuals, contact information has been obscured on comments received from the public. Each comment document (or public hearing commenter) was assigned a reference number. Then, the individual comments were assigned a secondary reference number. The comment reference numbers are identified in the comment reference documents in Appendix A within the comment summary and comment and response tracking table, and listed within the response document with the appropriate response(s). Comments received after the comment summary package was put together are included at the end of Appendix A.

COMMENT AND RESPONSE

Response to Comments Received on the Draft EIS; Including Corrections, Modifications, and Supplemental Information to Draft Environmental Impact Statement

Western received comments from Federal and State of Arizona agencies, tribes, organizations, potentially affected landowners, and other interested individuals regarding the Draft EIS. Each letter, email, fax, or recorded verbal comment was designated with a document reference number; then, the comments within each reference were identified and separated by topic (Appendix A). Western identified the following 22 response topics to address comments:

1. Underground Option
2. Aviation Safety
3. Barry M. Goldwater Range and Marine Corps Air Station Yuma
4. Flat-tailed Horned Lizard and Habitat
5. Visual Impacts
6. Local Benefit
7. Cumulative Impacts
8. Agriculture Impacts
9. Plant in Mexico/ Enforcement of Standards
10. Connection to Other Plans
11. Air Quality
12. Property Values
13. Cultural Resources/ Class III
14. Biology
15. Electric and Magnetic Fields
16. Radio and Television Interference
17. International Boundary
18. Water Regulations
19. Alignment
20. Contact Information
21. Corrections
22. Other

Comments not addressed by the 21 general topic categories have been responded to individually in Response #22, Other. The following information provides response number, topic, reference numbers of comments received on the topic, theme of comments, and response.

Response #1

Topic: Underground Option

Response to Comment Reference Numbers: 7.6, 7.12, 7.15.5, 35.2, 35.3, 37.2, 37.3, 40.3, 42.3, 48.5, 49.5, 50.6, 51.2, 52.1, 54.12

Theme of Comments: Comments include requests for additional analysis and full evaluation of an underground option as an alternative.

As described in the Draft EIS, Section 2.3, Feasibility Screening Criteria, recommended or proposed alternatives are subjected to a screening process to determine whether they are practicable for consideration as an alternative in the EIS. Screening criteria include: 1) does the alternative meet the purposes, needs, and objectives; 2) is the alternative reasonable based on engineering and construction considerations; 3) does the alternative have the ability to meet regulatory standards and be permitted; and 4) can the alternative be implemented for a reasonable cost. As described in Section 2.4, Alternatives Eliminated from Detailed Study, an underground option was evaluated in response to visual resource concerns and eliminated from detailed study based on substantially higher costs and environmental impacts as identified in publicly-available information for other similar transmission line projects.

In response to comments requesting additional analysis of an underground transmission line option, an independent private firm, Power Delivery Consultants, Inc. (PDC), investigated technologically feasible underground construction options and provided detailed cost estimates for these options. PDC has considerable experience in underground transmission projects. PDC prepared a report, “Budgetary Cost Estimates for Proposed San Luis Rio Colorado Project 230 kV Underground Transmission Technologies” (PDC 2007), that identified available technologies, construction requirements, operation and maintenance considerations, other similar projects, and cost estimates for undergrounding a 1-mile segment of the proposed double-circuit 230-kilovolt (kV) transmission line. The cost estimates for undergrounding 1 mile of transmission line can be extrapolated to determine the estimated cost to underground up to 6 miles of transmission lines. The estimated cost for an underground segment of double-circuit 500-kV transmission line would be greater than that detailed in the report. The full PDC report and PDC’s qualifications are included in Appendix B.

The technical part of the economic analysis concluded that the power transfer requirements for the 1-mile-long underground transmission line could be achieved using self-cooled 230-kV extruded dielectric transmission cables or force-cooled high-pressure fluid-filled pipe-type cables (PDC 2007). The analysis also identified that typical right-of-way (ROW) widths are between 25 feet to 30 feet; construction would require trenching up to 20 feet deep and up to 5 feet wide for the length of the underground segment. Direct burial of a transmission line would have lower costs and higher power transfer capability compared to concrete encased methods for underground transmission line construction; however, direct burial cable replacement for circuit repair or uprating is not economically feasible.

Budgetary cost estimates for a 1-mile-long segment using either of the 230-kV transmission cable systems analyzed totaled approximately \$15.3 million; each additional mile of underground transmission would cost approximately \$13 million. In comparison, a 1-mile-long

segment of an overhead transmission system would cost approximately \$1 million. The estimated cost to construct 1 mile of an underground transmission system to Proposed Project specifications would be approximately 13- to 15-times the amount to construct 1 mile of an overhead transmission system, which would render the Proposed Project economically unviable. An underground alternative is not reasonable because the cost would be prohibitive and the Proposed Project would not be built; therefore, the information in PDC's independent report is consistent with the determination in the Draft EIS that the underground option did not warrant full analysis as a viable alternative to overhead construction.

Western appreciates that an underground transmission line would have much less visual impact than an overhead transmission line. A discussion of visual comments can be found under response #5. However, it should be pointed out that the reduction in visual impact from underground construction would be offset by much greater ground disturbance due to the need to dig the trench, store trenching spoil outside of the trench, and access every foot of the ROW by concrete or backfill trucks and equipment. The increased ground disturbance could substantially increase the level of impact to listed and sensitive species and their habitat, other biological resources, cultural resources, soils and paleontology, air quality, and possibly transportation. These impacts have not been quantified, as the underground option is clearly not viable from the economic standpoint.

Response #2

Topic: Aviation Safety

Response to Comment Reference Numbers: 6.1, 6.4, 6.8, 7.4, 7.5, 7.11, 7.13, 7.14, 7.15.5, 7.15.23, 7.15.24, 7.15.25, 7.15.26, 7.15.27, 7.15.28, 7.15.29, 7.15.30, 7.15.31, 7.15.32, 13.1, 20.1, 25.3, 25.5, 26.1, 27.3, 28.2, 29.7, 29.8, 32.1, 34.1, 36.1, 40.1, 40.2, 50.4

Theme of Comments: Comments include military aviation operations, civilian aviation, and aerial chemical application.

In administering 14 Code of Federal Regulations (CFR) part 77, the Federal Aviation Administration's (FAA's) prime objectives are to ensure the safe and efficient use of navigable airspace. FAA Advisory Circular 70/7640-2K, Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace, provides information on FAA notification for persons proposing to erect or alter an object that may affect navigable airspace. According to the circular, FAA notification is required for projects that are 1) greater than 200 feet above ground level; 2) within 20,000 feet of a runway more than 3,200 feet in length; or 3) within 10,000 feet of a runway less than 3,200 feet in length. Although this Proposed Project does not fall within these parameters, Western will continue to coordinate, as needed, with FAA on the Proposed Project to ensure that mitigation measures are employed to minimize the risk to aviation safety associated with proposed construction of the transmission line.

At the request of the Marine Corps Air Station Yuma (MCAS Yuma), Western would install lighting, standard ball markers, and other line marking devices on static lines to make the lines more visible during the day. Western has also coordinated with MCAS Yuma on options to promote safety in the military operations area by marking the structures in a manner that would

make the structures visible at night and still be compatible with night-time operations and training procedures. Based on recommendations from MCAS Yuma, Western would mark structures located on the BMGR and those within ½-mile north and south of both County 19th and County 23rd with night vision goggle compatible lighting. Based on additional recommendations from MCAS Yuma, Western would mark the spans between these towers with red and white marker balls. Western has also proposed placement of bird diverters in this area as a proactive test of these devices to assess their effectiveness in marking the transmission line for pilots. The bird diverters would consist of plastic clamps and paddles attached to the static lines, which combine movement, reflectance, and ultraviolet “glow-in-the-dark” capabilities to call attention to the transmission line.

As described in the Draft EIS, Section 2.2 Identification of Alternatives, Western identified “no-go” areas surrounding the City of Yuma as part of the transmission line alternatives analysis. The “no-go” areas included the City of Yuma high-density commercial and residential area and the adjacent MCAS Yuma/ Yuma International Airport, and a landing strip (Auxiliary Airfield #2 or Aux II) and approach zone on the Barry M. Goldwater Range (BMGR) used by the Marine Corps. Western also identified airspace associated with smaller local airports (e.g., Rolle Airfield and Somerton Airport) as “no-go” areas and identified areas with height restrictions to avoid or minimize aviation safety concerns associated with operations on these runways. In addition, in consideration of aviation safety, Western made an effort to identify and analyze alternatives that would parallel existing facilities, which pilots currently take into account while flying.

Civilian and military aircraft are operated in the vicinity of transmission lines all over the world; electric and magnetic fields (EMF) from neither existing transmission lines nor the proposed transmission line would have an affect on avionics equipment. Aux II is used for a variety of military flight training operations. When using Aux II, military aircraft utilize the area west of the BMGR for their approach and flight paths. In this area, the preferred alternative (combination of the Route Alternative and 230-kV Alternative) was selected because it would shift the transmission line alignment one mile farther west from the Aux II runway. In addition, this shift in location would place the transmission line at a lower elevation in the area of the approach flight path because it would be located on the west side of a ridge such that approximately 60 feet of the structure height would be below the height of the ridgeline (see figure 1). Western is working to achieve 130-foot-tall structures where possible; however, some structures may be up to 150 feet tall as identified in the Draft EIS. Therefore, only about 70 feet of a standard structure would extend above the effective ground plane, the rest of the structure would be masked by the ridge behind it. Although the Proposed Project does not appear to have significant operational and environmental impacts to Marine Corps activities, MCAS Yuma prefers the 3E alignment (Route Alternative) over the 4E alignment and endorses the 230-kV Alternative. Western agrees, and the 3E alignment is also DOE’s preferred alternative.

Civilian aircraft, including Light Sport and aerial applicators, use a flight corridor located between the restricted airspace of the BMGR and the Air Traffic Control area of the MCAS Yuma/ Yuma International Airport (see figure 2). The proposed transmission line would be located within 1 mile of the existing Gila-Sonora Transmission Line in the area of this flight corridor. Aircraft flying in this corridor are not required to maintain radio contact with Air Traffic Control when flying below 1,200 feet. Minimum safe altitudes for aviation recommend that a person operating an aircraft maintain an altitude of at least 1,000 feet above the highest obstacle when flying over a built-up area and operate the aircraft not closer than 500 feet to any person, vessel, vehicle, or structure in a sparse area (FAR [Federal Aviation Regulation] part 91). Following these guidelines, persons operating aircraft are recommended to maintain a minimum altitude of 500 feet above structures; therefore, in the area of the proposed transmission line, flying at a minimum height of 650 feet would allow the recommended clearance for aviation safety and still allow the aircraft to remain in an airspace that does not require Air Traffic Control radio contact. The Proposed Project would fully comply with all applicable FAA regulations.

Ultralight vehicles are not subject to FAR part 91, rather FAR part 103 provides guidance for operation of ultralight vehicles and states that “no person may operate any ultralight vehicle in a manner that creates a hazard to other persons or property;” they can only operate between the “hours of sunrise and sunset;” and “no person may operate an ultralight vehicle over any congested area of a city, town or settlement, or over any open air assembly of persons.” Any object that projects above the ground is a potential hazard to ultralight vehicle operators, and the Proposed Project would introduce a new obstruction to the regional landscape. This would constitute an increased risk to ultralight vehicles and their pilots, and thus an impact. Fliers from the private airfields south of Yuma would have to cross the Proposed Project to reach the north-south air corridor along the BMGR boundary. In the narrowest point of the corridor used by civilian pilots, the proposed transmission line would be located outside of, but adjacent to, the corridor (see figure 2). In addition to promoting safety in the military operations area, the addition of tower lighting, marker balls, and bird diverters would increase the visibility of the transmission line for civilian pilots. The Proposed Project would be constructed in compliance with all applicable FAA regulations, and FAR part 103 would seem to place the burden of avoidance on the ultralight vehicle operators. In addition, the rapid development of residential and commercial property between about County 14th and I-8 would greatly restrict the future operation of ultralight vehicles in this area under FAR part 103. Given this situation, Western concludes that the Proposed Project would have an adverse, but not significant, effect on ultralight vehicle operations.

Between Gila and North Gila substations, Western presently believes that underbuilding the 69-kV circuits on the Proposed Project is viable, and plans to construct the line across the agricultural area using this configuration. Therefore, the preferred alternative would remove the existing double-circuit 69-kV transmission line and underbuild it on the proposed transmission line and parallel the existing 161-kV transmission line. The proposed transmission line would be approximately 100 feet taller than the existing transmission lines along the preferred alternative; however, it would be co-located with existing transmission lines currently taken into account for aerial chemical application in the area. The following discussion of aerial chemical application is from Section 4.6.3 of the Draft EIS:

A combination of ground and aerial chemical application is currently used on the crops between Gila and North Gila substations. The new transmission structures would be approximately 100 feet taller than the existing structures. Taller structures pose an added risk to aerial applications; however, with consolidation of existing transmission, the proposed structures would replace existing structures in this area that aerial applicators currently work around. The crops are row-irrigated and arranged parallel with the existing transmission lines. Flight patterns for aerial application, flown parallel to the existing transmission lines, would not be impacted by the increased height of the structures. Safety risks associated with the taller structures would be mitigated by placing aircraft warning balls on the static line[s] that cross agricultural fields.

The Proposed Project would parallel existing transmission lines where it would cross agricultural lands between Gila and North Gila substations, replace one of these existing lines, and use and widen the existing ROW. Since aerial applicators are familiar with and presently working around the existing lines, and most likely are already spraying parallel to them, the additional height of the proposed line should not constitute a significantly increased risk to aerial applicators. The risk would be much greater if the proposed transmission line were to cross the valley in any other location, presenting aerial applicators with two separate lines to keep track of, instead of one consolidated crossing they are familiar with.

Response #3

Topic: Barry M. Goldwater Range and Marine Corps Air Station Yuma

Response to Comment Reference Numbers: 6.2, 6.3, 6.10, 6.12, 6.14, 7.2, 7.3, 7.5, 7.9, 7.12, 7.15.6, 7.15.8, 7.15.10, 7.15.12, 24.5.2, 29.6, 31.2, 33.11, 48.1, 49.3, 50.2, 51.1

Theme of Comments: Comments include creating access to and encroachment on the Barry M. Goldwater Range.

Western understands the local and national importance of the BMGR. The military contributes substantially to the Yuma economy via wages paid and goods and services purchased. In addition, many retired military personnel live in the Yuma area. Nationally, the BMGR serves an important role for military purposes, including both ground and air combat training. BMGR military activities and facilities include air-to-air and air-to-ground training, air-to-ground target complexes, West Coast Tactical Air Combat Training System Range, auxiliary airfield, parachute drop, cargo recovery zone, explosive ordnance disposal, small arms ranges, Air

Defense Complex, and ground support areas. Draft EIS sections 3.6 and 4.6, pertaining to land use, contain information on the BMGR.

Stewardship requirements contained in the MLWA-99, MCO P5090.2 and Department of Defense directives require MCAS Yuma to use their authorities to manage the BMGR to protect mission requirements while also meeting environmental regulatory requirements. Western began coordinating with MCAS Yuma on the Proposed Project prior to EIS development. MCAS Yuma is a formal Cooperating Agency for this EIS process.

The preferred alternative (a combination of the Route Alternative and 230-kV Alternative) was in part identified as a result of coordination with MCAS Yuma. After being presented with the Applicants' Proposed Action, Western identified three regional corridors (West, Center, and East) that could be used for routing a transmission line. The regional corridors were defined by obvious "no-go" areas including the City of Yuma high-density commercial and residential area and adjacent MCAS Yuma/ Yuma International Airport, and the landing strip (Aux II) and approach zone on the BMGR used by the Marine Corps. These two areas, both of which are completely incompatible with a transmission line, constituted "islands" that, together with the international border to the south and west and Gila Mountains to the east, formed rough boundaries for the three regional corridors. After initial investigation, Western determined that two of the regional corridors, East and West, were not feasible; these corridors and a full explanation of why they were determined to be not feasible are described in the Draft EIS, Section 2.4, Alternatives Eliminated from Detailed Study.

Based on coordination with MCAS Yuma, the East Corridor was eliminated from detailed study because it would be wholly incompatible with operations on the BMGR.

The following is a sampling of the reasons the West Corridor was eliminated from detailed study:

- The West Corridor would be twice as long as the Center Corridor and render the project economically infeasible.
- The West Corridor would require two crossings of the Colorado River and sensitive habitat as opposed to one crossing of the mostly dry Gila River.
- The West Corridor would cross three times the amount of agriculture crossed by the other corridors and introduce new transmission structures in an area of agriculture that does not currently have transmission structures, resulting in impacts on high-value cropland and a new safety risk to aerial chemical applicators.
- Substantial engineering constraints are posed by the existing Yucca power plant, existing transmission lines, and Arizona Public Service Company (APS)-proposed additional generating units. In addition, the west side of the Yuma commercial/residential area forms a bottleneck to routing in the vicinity of the Yucca power plant. There is little room to site a transmission line between the Colorado River and the developed area in this location.

The Center Corridor contained the path of the Applicants' Proposed Action and was presented at stakeholder and scoping meetings to determine additional routing constraints and opportunities.

The portion of the Route Alternative (Draft EIS, figure 2.3-1) between the border and County 19th was identified to reduce impacts to BMGR operational activities by moving the alignment one mile farther west of Aux II than the Applicants' Proposed Action (Draft EIS, figure 2.1-1).

The Route Alternative (preferred alignment) would cross the northwest corner of the BMGR, parallel to and on the west side of the planned Area Service Highway (ASH). Therefore, the proposed ASH would be located between the proposed transmission line and the firing range, which is located on the northeast corner of the intersection of Avenue 4E and County 19th. As discussed in the Draft EIS sections 3.6 and 4.6, pertaining to land use, the Route Alternative would result in less impact because it would avoid the intersection of Avenue 4E and County 19th. Access for the portion of the alignment across the BMGR would be restricted and coordinated with MCAS Yuma. The northwest corner of the BMGR and certain areas east and south of County 14th and the BMGR boundary are known World War II era explosive ordnance disposal (EOD) areas. Construction along the Proposed Project ROW may result in the discovery of Unexploded Ordnance (UXO). A qualified crew trained in munitions and identification would conduct a preconstruction survey to identify any UXO and determine the process to locate, handle, and remove the UXO. In this area, construction crews would also be trained in munitions identification prior to drilling and excavation construction activities for placement of structures. If munitions are encountered during survey or construction, the Proposed Project could trigger actions under the Resource Conservation and Recovery Act (RCRA – process for handling hazardous wastes), which could entail a lengthy process to address and “clean-up” the site.

Initially, MCAS Yuma identified potential safety concerns with the main airfield at MCAS Yuma/ Yuma International Airport; however, the Proposed Project would not be located within that facility's obstruction free zones for aviation and the transmission line would not affect the microwave transmissions between MCAS Yuma and BMGR. Based on recommendations from MCAS Yuma, Western would mark structures located on the BMGR and those within ½-mile north and south of both County 19th and County 23rd with night vision goggle compatible lighting. Based on additional recommendations from MCAS Yuma, Western would mark the spans between these towers with red and white marker balls. Western has also proposed placement of bird diverters in this area as a proactive test to see if the bird diverters would assist with pilot identification of the transmission lines. Both Western and MCAS Yuma prefer the 3E alignment (Route Alternative) over the 4E alignment and the 230-kV Alternative. Western will continue to coordinate with MCAS Yuma in an effort to minimize environmental impacts in general, and to balance resource trade-offs where impacts are unavoidable.

Response #4

Topic: Flat-tailed Horned Lizard and Habitat

Response to Comment Reference Numbers: 1.10, 1.15, 1.17, 2.3, 7.8, 7.15.19, 7.15.21, 7.15.22, 11.1, 15.4, 15.5, 15.8, 18.3, 21.1, 21.10, 21.11, 21.12, 21.13, 21.14, 21.15, 21.16, 21.17, 24.5.1, 27.2, 28.3, 33.4, 33.5, 33.6, 33.8, 33.9

Theme of Comments: Comments include proposed location of facilities in the Flat-tailed Horned Lizard Yuma Desert Management Area (FTHL MA), impact mitigation, and habitat compensation.

On December 7, 2005, the U.S. Fish and Wildlife Service (USFWS) published notice in the *Federal Register* to reinstate the 1993 proposed rule to list the flat-tailed horned lizard (FTHL) as a threatened species under the Endangered Species Act of 1973, as amended (ESA). On June 28, 2006, USFWS published a determination in the *Federal Register* that listing the species as threatened is not warranted and, therefore, the proposed listing was withdrawn. Currently, the FTHL is identified by Arizona Game and Fish Department (AGFD) as Wildlife of Special Concern in Arizona and by USFWS as a Species of Concern; however, Species of Concern do not have official status.

In response to the recent re-evaluation of FTHL status by USFWS, Western determined to treat FTHLs as listed species and discussed them in the Biological Assessment prepared for this project, even though they are not currently listed under ESA. As noted in the Draft EIS, Western would comply with mitigation measures in accordance with the FTHL Rangewide Management Strategy, 2003 Revision (FTHL RMS) as appropriate for the Proposed Project. Mitigation measures from the FTHL RMS were specifically included in the Draft EIS in Section 2.1.1.8, Western's Standard Mitigation Measures and Section 4.4.3.3, Assessment of Impacts; these mitigation measures were incorporated by reference in Section 2.3.1, Route Alternative and Section 2.3.2, 230-kV Alternative. The mitigation measure referring to paved roads (number 10), was not listed in the Draft EIS because this Proposed Project would not include any paved roads. In addition to compliance with FTHL RMS mitigation measures, Western would coordinate with USFWS regarding habitat compensation. As additional mitigation, construction in the FTHL MA during winter would limit the mortality of FTHLs attracted to watering for road compaction and would also require less water use than during summer months when evaporation rates would be higher.

Figure 3 illustrates the location of the FTHL MA, proposed transmission line border-crossing location, Applicants' Proposed Action, and Route Alternative. The San Luis Rio Colorado Project is an independent non-Federal project proposal that was developed by North Branch Resources, LLC (NBR) and Generadora del Desierto, S.A. de C.V. (GDD) (collectively termed the Applicants). As discussed in the Draft EIS, Section 1.2.6, Applicants' Project Objectives, to remain economically viable the Applicants are basing their Proposed Project on the power plant site already owned by GDD. In addition, the Applicants' power plant site is near enough to the border to allow for private ownership and control of the short transmission line section in Mexico. The proposed power plant, proposed power plant location, and proposed transmission line from the plant to the border would be an independent non-Federal action located in Mexico and, therefore, not subject to the National Environmental Policy Act (NEPA). Based on these

factors, the location of the proposed transmission line border-crossing point was established and fixed according to the Proposed Project components located in Mexico.

Given that the fixed proposed transmission line border-crossing point is within the FTHL MA it would not be possible to avoid the FTHL MA. FTHL RMS mitigation measure number 1 states, “If a project must be located within a MA or RA, effort shall be made to locate the project in a previously disturbed area or in an area where habitat quality is poor”. Although the Proposed Project would create a new feature within the FTHL MA and vehicle traffic would temporarily increase during construction, scoping and reasonable alternative analysis identified the Route Alternative as the preferred alignment. The Route Alternative would minimize impacts within the FTHL MA by paralleling and sharing use of an existing transmission line ROW and improved access road within the FTHL MA. The portion of the Route Alternative not adjacent to an existing feature was identified because it created the shortest distance of disturbance between the existing features and the boundaries of the FTHL MA.

The location of the proposed staging area also conforms to FTHL RMS mitigation measure number 1, identified above. The site proposed for the staging area was identified because the site is a currently disturbed construction area, located adjacent to an existing improved access road, and adjacent to a source of water. Figures 4 through 8 illustrate current disturbance (e.g. portable toilets, vehicle tracks, and tractor trailers) within the area. A staging area would be required within the FTHL MA because the distance between the border and the FTHL MA boundary is too long for heavy-haul trips. A staging area within the FTHL MA would result in fewer impacts than one adjacent to the boundary of the FTHL MA because it would shorten the distance of heavy-haul trips and require less watering and dust control. Since a heavily disturbed site is already present within the FTHL MA, it is appropriate to use it instead of creating a new staging area site with its associated impacts at another location.



Figure 4. FTHL MA, facing north adjacent to the proposed staging area location.



Figure 5. FTHL MA, facing north/northeast toward proposed staging area location.



Figure 6. FTHL MA, facing east toward proposed staging area location.



Figure 7. FTHL MA, facing east toward proposed staging area location.



Figure 8. FTHL MA, facing west toward proposed staging area location.

The activities currently creating disturbance within the FTHL MA, such as construction of physical border barriers, patrol roads, and active patrolling are exempt from NEPA (Department of Homeland Security 2007). Construction of the physical border barriers and patrol roads are intended to reduce the amount of illegal entry into the United States, which would also reduce the amount of impact to the FTHL MA area. As part of the Proposed Project, Western would

mitigate impacts to the FTHL MA along the proposed alignment, any temporary and/or permanent access roads, the staging area, and any other areas that would be disturbed by the Proposed Project. Western's impact mitigation would also mitigate co-located impacts that are not subject to NEPA and may not otherwise be mitigated.

Response #5

Topic: Visual Impact

Response to Comment Reference Numbers: 21.21, 21.22, 21.23, 21.24, 21.25, 25.6, 35.5, 37.5, 45.2, 45.4, 48.2, 49.2, 50.3, 53.2

Theme of Comments: Comments include visual impacts due to the presence of a transmission line.

The visual resource impact analysis was conducted using Bureau of Land Management's (BLM's) Visual Resource Management (VRM) system, which is a federally-approved system. The affected environment and impact analysis described in Draft EIS sections 3.8 and 4.8, respectively, identified that the Proposed Project area falls within the BLM VRM Class III. The Class III management area objective is partial retention of the existing landscape with only moderate changes allowed in the characteristic landscape. The designation of the Proposed Project area as VRM Class III is consistent with BLM's Visual Resource Inventory conducted in 2005 (BLM 2007), in which BLM identified areas near the Proposed Project crossings of Interstate 8, Highway 95, and the Gila River as well as lands contiguous with the FTHL MA as VRM Class III management areas.

Subsequent to the release of the Draft EIS, the BLM Yuma Field Office released a draft Resource Management Plan (draft RMP)/draft EIS (BLM 2007) to revise the existing RMP/EIS for the Yuma Field Office planning area. In BLM's draft RMP/draft EIS, only the no action alternative maintains the VRM designations and management objectives for the Proposed Project area identified in the 2005 Visual Resource Inventory (listed above). The draft RMP/draft EIS includes five proposed action alternatives, including the preferred alternative; each of these alternatives retains the designation of VRM Class III for BLM lands contiguous with the FTHL MA and re-designates BLM lands near the Proposed Project crossings of Interstate 8, Highway 95, and Gila River as VRM Class IV. The Class IV management area objective is to provide for activities that require major modification and allow high levels of change to the characteristic landscape.

Most of the comments received regarding visual impacts pertained to the view from residences on the western boundary of the BMGR. The residences along the western edge of the BMGR overlook agriculture, including lemon groves, and increasing residential development to the west and overlook the relatively undeveloped BMGR towards the Gila Mountains to the east. Although relatively little development has occurred on the BMGR, it is consistently in use for military training and operations. In addition, there is an existing 69-kV transmission line that parallels the western boundary of the BMGR and is located between the residences and the view across the BMGR. The Draft EIS included Key Observation Points and visual simulations of a double-circuit 500-kV transmission line along the proposed route alternatives. Key Observation

Points were determined by, and are consistent with, the input received at scoping, which focused on the views along the BMGR western boundary in Segment 1 of the Proposed Project area. Draft EIS figure 4.8.1 is a photograph taken at the intersection of Avenue 5¼ and County 14¼ and is representative of the view from residences along the western boundary of the BMGR. Figures 4.8.2 and 4.8.7 are simulations of the Applicants' Proposed Action and the Route Alternative, respectively, and illustrate how the Proposed Project would likely appear from residences along the western boundary of the BMGR. The preferred alternative is a combination of the Route Alternative and the 230-kV Alternative, which would result in smaller, less massive structures than those used for the simulations. Use of steel monopole structures would also result in less impact than steel lattice structures, because the monopoles would create a single vertical line compared to lines of varying widths and directions associated with a lattice structure.

The VRM system imposes a somewhat artificial structure on very subjective visual values. Individuals have greatly varying opinions as to the visual impact of a new transmission line. The VRM model by necessity looks at visual impacts from more of a societal view, and provides a framework for limiting evaluation bias as well as allowing direct comparisons of very different viewsheds. Some residents along the BMGR boundary feel the Proposed Project would have a significant visual impact on them, while others may not. As a result, Western recognizes that some residents will not agree with the results of the VRM analysis. Although the VRM system remains the best and most widely accepted tool available for impartial analysis of visual impacts, Western acknowledges that some residents will consider the impact of the Proposed Project on them to be significant.

One comment was received regarding visual impacts to Redondo Pond and Yuma Lakes. Yuma Lakes is the only recreational area within the Proposed Project area. As discussed on Draft EIS, page 255, the preferred alignment (Route Alternative) would not cross the Yuma Lakes residential, recreational vehicle (RV), and trailer park area, but it would span the northern portion of Redondo Pond and be more visible to users of the pond. Western presently believes that underbuilding the existing double-circuit 69-kV is a viable option and would potentially remove the 69-kV structures from the recreational use area of the Yuma Lakes and the south end of the pond pending coordination with APS and Reclamation; however, the existing 161-kV transmission line would remain in this area. Redondo Pond, a man-made pond used for recreation and overflow from the canal system, is located southeast of North Gila Substation. The area surrounding Yuma Lakes and Redondo Pond has been previously modified by the addition of several transmission lines, roads, residences, RV parks, agriculture, and a canal.

The addition of a new transmission line would result in an additive change to the visual landscape; however, the majority of the preferred alignment is adjacent to, or within view of, existing transmission lines in areas equivalent to VRM Class III or Class IV. Given the extent that the landscape has been previously modified, most visual impacts from the Proposed Project would be additive and the visual element which would most likely draw attention is the vertical line introduced by the new transmission structures. Over time, the vertical line contrast of the new structure would draw less visual attention. As discussed in the Draft EIS, this additive level of change would still be within the management objectives for a VRM Class III area.

Response #6

Topic: Local Benefit

Response to Comment Reference Numbers: 6.13, 7.7, 7.15.1, 7.15.3, 15.2, 16.3, 16.3.1, 16.3.2, 16.3.3, 16.4, 21.29, 23.1.3, 23.2, 23.2.1, 23.2.2, 23.2.3, 24.6, 24.7, 24.8, 29.2, 29.4, 29.9, 35.7, 37.7, 30.10, 31.3, 32.2, 41.1, 41.2, 44.2, 44.3, 45.1, 45.5, 46.2, 47.3, 54.2, 54.7, 54.8

Theme of Comments: Comments include need for the Proposed Project, lack of local benefit, and distribution of power through Arizona to California.

According to Council on Environmental Quality's (CEQ's) Regulations for Implementing NEPA, Section 1502.13 Purpose and Need, "The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." Therefore, the purpose and need described in the Draft EIS, Section 1.2, Purpose and Need, is that which results from the need for Federal decisions regarding the Proposed Project. The purpose and need for agency action for this Proposed Project includes decisions from Western to grant or deny the Large Generator Interconnection request at its Gila Substation; from the U.S. Department of Energy Office of Electricity Delivery and Energy Reliability (DOE OE) to grant or deny a Presidential permit for the construction, connection, operation, and maintenance of the proposed transmission line at the United States-Mexico border; from the U.S. Bureau of Reclamation (Reclamation) to grant or deny ROW requests for portions of the transmission line; and from Department of the Navy to grant or deny a permit to construct a portion of the transmission line across the BMGR. BLM is also a cooperating agency for the Proposed Project, but since no BLM administered public lands would be involved, that agency has no Federal action.

Federal Energy Regulatory Commission orders, which have the force of law, require Western to respond to an interconnection request; the law and Western's procedures developed in compliance with the law provide a process to meet the legal requirements. In cases where granting an interconnection request would enable a private project to be constructed, Western analyzes the environmental consequences within the United States resulting from the entire proposed project, not just the Federal actions. However, Western is not a utility regulator. Determinations about the need for or benefit from the Proposed Project, and decisions about whom the power would be supplied to, are not Western's to make. The Applicants, as a private enterprise, have the right to develop a project, invest capital in it, and operate their business at their own financial risk. The same would be true of any individual wanting to open a business, be it a picture framing shop, a farm, or a power plant. Western's role is to identify and disclose the environmental impacts of the Proposed Project, and to ensure that an interconnection would not degrade transmission service to its customers. DOE OE is not a utility regulator either. DOE OE needs to make a determination whether the Proposed Project is consistent with the public interest, and will do so by assessing the identified environmental impacts, and considering the potential impacts on the operation of the nation's transmission system in order to ensure no adverse impact on the reliability of the United States electric transmission grid.

Electric power is purchased and sold according to purchase agreements and availability. Purchase agreements can be negotiated for varying amounts of time (long- or short-term) as needed by the purchaser and agreeable to the seller. There may be several major changes in

where the power goes over the life of a project, as contracts expire and new contracts are negotiated. The Proposed Project would be available to provide power to parties entering into a contract with the Applicants. If APS chooses to enter into a purchase agreement, power could be delivered directly to the Yuma area. Otherwise, power could be delivered to locations in California, other areas in Arizona, or to wherever there is a need and there is a willing purchaser. The Applicants state that they proposed the San Luis Rio Colorado Project to develop and construct a power generation and transmission project that would serve regional power needs and could create a possibility to consolidate with a portion of APS' proposed 230-kV transmission project.

In addition to the power committed under purchase agreements, the Applicants plan to have a reserve of power that would be available on a daily basis to help serve unexpected peak power needs. Such resources, known as spot market power, are contracted for varying short terms to make up for unexpected shortages or unanticipated high loads. Spot market power often sells for higher prices than long-term contracted power, but there is not always a demand for it. Most power producers commit a large part of their generation under long-term contracts in order to have guaranteed power sales and income, but reserve a block of power for the more speculative spot market, where profits may be higher if the power is needed. Even if a generation source is not directly supplying long-term power to the immediate area, the addition of the generation source to the local electrical system strengthens power resources and reliability because it is available and near to the power load. Should a power shortage or transmission system problem develop in the Yuma area, spot market power would be available to APS from the Proposed Project.

Response #7

Topic: Cumulative Impacts

Response to Comment Reference Numbers: 1.19, 7.15.37, 15.6, 15.7, 18.2, 21.15, 21.18, 33.7, 33.11

Theme of Comments: Comments include Union Pacific Railroad, encroachment on BMGR, and adequacy of the cumulative impacts analyses for FTHL and air quality.

Union Pacific Railroad

As described in the Draft EIS, Section 5.3, Reasonably Foreseeable Future Actions, at the time of preparation of the Draft EIS, the Union Pacific Railroad was “conducting a study to identify potential alignments near the City of Yuma; however, the study was too early in the process for Union Pacific Railroad to disclose any details” (Peterson 2006). On March 15, 2007, Union Pacific Railroad held its third stakeholder meeting at the Yuma City Council chambers. The Yuma Sun reported that, “The new track is part of a proposal by UP to transport goods from a planned superport at Punta Colonet on the western coast of Mexico. The port would receive container ships, mainly from Asia, with products that would need to be shipped into the United States” (Yuma Sun 2007). General information about potential benefits of the Union Pacific Railroad proposal is being released; however, the project is still in the planning and feasibility stage and it is too early in the process to determine potential impacts from the proposal. Information such as location, traffic volume, and operation methods for a new rail alignment is

not available; therefore, a new rail alignment was not included in the cumulative impacts analysis because there is not enough information available to consider environmental impacts of the proposal in the reasonably foreseeable future.

Encroachment on BMGR

The proposed transmission line would be located west of the proposed ASH across the northwest corner of the BMGR, resulting in an additional request to MCAS Yuma and Department of the Navy for an easement. The proposed transmission line easement would maintain restricted access to the BMGR and restricted use. The following statement pertains to cumulative development and resultant encroachment on the BMGR and is taken from the Arizona Department of Transportation's (ADOT's) Yuma Area Service Highway Final Environmental Assessment and Section 4(f) Evaluation (2005):

According to representatives from MCASY [MCAS Yuma] there would be *less* cumulative development and resultant encroachment by locating the ASH *within* the BMGR than by locating it on an alignment near—but *outside*—the BMGR. The relevant military inputs reflected in this conclusion about potential encroachment by development have been part of the planning process for the ASH from its earliest conceptions.

MCAS Yuma “stated a preference for the ASH to be located inside the BMGR so that unwanted encroachment by commercial and residential development adjacent to the roadway can be prevented” (ADOT 2005).

As discussed in Response #3, stewardship requirements contained in the MLWA-99, MCO P5090.2, and Department of Defense directives require MCAS Yuma to use their authorities to manage the BMGR to protect mission requirements while also meeting environmental regulatory requirements. MCAS Yuma and the Department of the Navy must approve any project that would involve lands within the BMGR. MCAS Yuma has not identified any factors that would preclude the Proposed Project from consideration for an easement. Throughout the Proposed Project process, Western will continue to coordinate with MCAS Yuma on any issues they may identify, and to minimize environmental impacts in general, and balance resource trade-offs where impacts are unavoidable.

FTHL and Habitat

The following information is provided to supplement Draft EIS, Section 5.4.2, Biological Resources. Analyses of FTHL impacts from the proposed ASH and other cumulative actions (not including the Proposed Project) are identified as follows from excerpts of ADOT's Yuma Area Service Highway Final Environmental Assessment and Section 4(f) Evaluation (2005):

Habitat would be lost within the ASH right-of-way, and the ASH would effectively isolate parcels of FTHL habitat, which may compromise the long-term viability of the FTHL within those parcels. In addition, individual FTHLs could be killed as a result of construction activities. Less than 0.001 percent of the current FTHL habitat in the United States would be directly lost by construction of the ASH; less than 0.005 percent of FTHL habitat in Arizona would be lost. However, these values do not include additional acreage affected by the ASH through indirect effects (those occurring later in time; e.g.,

effects resulting from habitat fragmentation), nor does it consider habitat quality. While the ASH would impact FTHLs and their habitat, the majority (77 percent) of all FTHL habitat in Arizona is within the Yuma Desert MA; signatories to the Agreement manage 87 percent of all FTHL habitat in Arizona; the remaining habitat is found primarily on ASLD administered and private lands.

Construction and operation of the ASH would have direct, indirect, and cumulative adverse effects on the FTHL. A variety of measures have been incorporated into the project to mitigate these adverse effects so that the net impact to the species is neutral or positive. The majority of mitigation measures for the protection of the FTHL would be implemented concurrently with the construction of the ASH. The ASH mitigation measures (Appendix D [of the ASH EA]) are consistent with, and fully implement, the direction and intent of the FTHL Agreement and the 2003 RMS.

The FTHL occurs on sandy flats and valleys in the creosote-bursage vegetation association, which includes areas south of the Gila River and west of the Gila Mountains in Arizona. Its range extends west to eastern San Diego County and central Riverside County, north to the Coachella Valley, and to the south in Mexico. Substantial habitat loss has occurred in the central and northern portion of the FTHL's range because of economic growth and development. The continued trend toward development of privately owned lands in the geographic area of influence has resulted in the loss of plant and wildlife habitat at an increasing rate. Rapid increases in the human population, increased Border Patrol enforcement efforts, as well as increasing levels of OHV and other uses in and outside of the area of geographic influence would affect undeveloped areas that contain occupied suitable habitat for this species. Large land areas in the greater Yuma area associated with BLM, Reclamation, and MCASY would remain as relatively undisturbed habitat. As previously discussed in this EA, while the FTHL is not currently protected under the ESA, the RMS provides protection to FTHLs on lands under the jurisdiction of the agencies that are signatories to the conservation agreement. Federal agencies responsible for management of the five FTHL MAs have agreed to manage the MAs consistent with the RMS guidance to minimize impacts on the FTHL. Impacts from present and reasonably foreseeable future actions that occur on lands within the five FTHL MAs and on signatory lands would be mitigated according to the requirements of the RMS, which include minimization of impacts, compensation for lost habitat, and habitat restoration programs.

Cumulative impacts on the FTHL within the geographic area of influence include the effects of past, present, and reasonably foreseeable future actions such as I-8 and SR 95 highway construction, construction of the Arizona State Prison Complex – Yuma, military activities associated with MCASY, construction and expansion of Reclamation's salt sludge disposal facilities, and commercial development of the POE and associated secondary development in proximity to the POE. In addition, many human activities have affected FTHL habitat in the geographic area of influence. Direct and indirect impacts on the FTHL from the ASH have been identified that are not considered likely to result in a loss of viability or trend toward federal listing for this species. In FWS's 1997 withdrawal of the proposed rule to list the FTHL as threatened, it was estimated that

approximately 1,243,340 acres of suitable FTHL habitat remains in the US. Using these estimates and the estimate of 623 acres of direct loss of FTHL habitat within the project limits, less than 0.001 percent of total remaining FTHL habitat in the US would be lost, and less than 0.004 percent impacted when indirect effects are taken into account. In the withdrawal of the proposed rule to list the FTHL as threatened, FWS stated that because the ASH would only impact the MA boundary on one side—and by less than 1 percent—and leave the habitat in the MA contiguous, the ASH would not constitute a substantial threat to the species or its habitat such that the species warrants listing under ESA.

As identified in the cumulative impacts analysis of the Draft EIS, Section 5.4.2, Biological Resources, the preferred alternative – a combination of the Route Alternative and 230-kV Alternative – would result in only 0.07 acres of permanent loss within the FTHL MA for placement of structures. In addition, the preferred alternative would require 2.8 miles of new access road within the FTHL MA. The preferred method for access would be overland travel and the access road easement would be approximately 30 feet wide, of which 12 feet to 20 feet would be disturbed resulting in approximately 6.7 acres of temporary disturbance within the FTHL MA. The 200-foot by 400-foot staging area within the FTHL MA would result in approximately 0.2 acres of disturbance; however, the majority of this site is previously disturbed from current construction activities. Therefore, the majority of the anticipated impact is temporary and associated with construction activities; once the line is in place little additional impact would occur. Any additional effects would be related to maintenance vehicles on the access roads, perhaps once annually.

Overall, the placement of structures, access road, and staging area for the Proposed Project would result in approximately 7 acres of disturbance within the FTHL MA. Based on the figures provided above (approximately 1,243,340 acres of suitable FTHL habitat available in the United States and the estimate of 623 acres of direct loss of FTHL habitat within the proposed ASH project limits), cumulative impacts from the proposed ASH analysis combined with impacts from the Proposed Project would result in less than 0.001 percent of total remaining FTHL habitat in the United States to be lost, and less than 0.004 percent impacted when indirect effects are taken into account. With the commitment to follow the guidance presented in the FTHL RMS, cumulative impacts of additional future projects with past and present projects would result in less than significant impacts to the FTHL.

Air Quality

One comment was received regarding the cumulative impacts analysis for air quality; this comment stated that “the DEIS fails to quantify the potential cumulative impacts from proposed Arizona Public Service power plants, the proposed gasoline refinery, a proposed ethanol plant, the Area Service Highway, the port of entry, and general commercial and residential developments in the Yuma area.” The following is the Draft EIS cumulative impacts analysis for air quality (Section 5.4.1):

The Wellton-Mohawk Title Transfer would have no direct impact on air quality. Construction of Western’s transmission system upgrades, APS’ transmission line and generating plants, ACF’s [Arizona Clean Fuel’s] pipeline and refinery, regional development, the port of entry, and ASH would result in fugitive dust emissions during

construction that would have a temporary impact on local air quality. Following construction, regional development could reduce impacts on air quality by landscaping and paving areas of loose soils that would otherwise add to fugitive dust during times of naturally occurring high-wind events. All of these activities would be subject to various air quality regulations requiring dust abatement measures.

The new port of entry coupled with the ASH would alleviate traffic congestion and wait times for vehicles at the existing port of entry. Development of the new port of entry would reduce air emissions in the region by reducing the wait time of vehicles at the existing port of entry (Reclamation 2000). The ACF refinery would contribute to additional emissions in the region, but those emissions would be unlikely to travel west of the Gila Mountains. The U.S. Environmental Protection Agency's (EPA's) Prevention of Significant Deterioration (PSD) increments would apply to the refinery and mitigation measures identified in the Arizona Department of Environmental Quality's (ADEQ's) air permit for the refinery would prevent significant deterioration of air quality. No significant cumulative impacts are anticipated as a result of the Proposed Project.

The analysis above does not specifically quantify air impacts as a result of past, present, and reasonably foreseeable future actions because data is not available for the estimated emissions generated from or alleviated by the reasonably foreseeable future actions; however the baseline condition used in the impact analysis in Draft EIS Section, 4.3 Air Impacts, and as a basis of the above discussion, accounts for past and present activities. The analysis above also includes possible factors that would increase or decrease emissions and recognizes that future projects would be required to meet air quality regulations, including dust abatement during construction and ADEQ air permits where applicable. Following publication of the Draft EIS, an ethanol plant has been proposed near the ACF refinery; however, minimal information is available about this proposal. Similar to the refinery, emissions from the proposed ethanol plant would be unlikely to travel west of the Gila Mountains. As briefly mentioned above, regional development and the trend toward urbanization could reduce impacts on air quality by landscaping and paving areas of loose soils. Similarly, the conversion from open desert and agriculture to residential and commercial lots could reduce air quality impacts by placing structures on otherwise loose soils that can be wind-blown. Air quality impacts resulting solely from the Proposed Project would be less than significant and are reiterated in Response #11, Air Quality.

Response #8

Topic: Agricultural Impacts

Response to Comment Reference Numbers: 1.2, 4.4, 16.1, 16.1.3, 16.1.4, 23.3, 23.3.1, 23.3.2, 24.5.3, 25.2, 25.3, 25.4, 28.1, 29.8

Theme of Comments: Comments include impacts to agricultural operations.

Under United States Code Title 7 Agriculture, Chapter 73 Farmland Protection Policy, Section 4201 General Provisions, prime and unique farmland are defined as follows:

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary. Prime farmland includes land that possesses the above characteristics but is being used currently to produce livestock and timber. It does not include land already in or committed to urban development or water storage.

Unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops, as determined by the Secretary. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables.

As discussed in the Draft EIS, Section 4.6.3.2, Route Alternative, the Route Alternative (preferred alignment) would require new structures in the center-pivot irrigation agricultural area adjacent to Avenue 3E. In the center-pivot irrigation agricultural area, the transmission line would be located adjacent to and use an existing access road (Avenue 3E) and would be designed to place structures outside of the irrigated circles to avoid potential impacts to the farmland and avoid conflicts with the sprinkler systems.

The irrigated farmland between the Gila Substation and North Gila Substation is prime farmland. Western identified the existing transmission lines that cross the valley between Gila and North Gila substations as an opportunity for co-location of the Proposed Project to minimize impacts to prime farmland as identified by the following methods.

By paralleling the existing transmission lines, Western would be able to use the existing access road and would not likely need to create new access roads in agriculture fields (short spurs to structure locations may be needed in some areas, but with fewer structures required, other existing spurs would be abandoned and could be recovered for agricultural purposes). Following another alignment across the valley would create a new utility corridor, require an entirely new access road, create a zone between the two corridors that would be more difficult for aerial applicators to spray, and increase the collision risk to aerial applicators.

The proposed transmission line would use taller, single pole structures rather than the existing H-frame structures, which would make it easier to farm underneath and around because the existing two-pole structures would be replaced by fewer, single-pole structures. The following discussion of aerial chemical application is from Section 4.6.3 of the Draft EIS:

The new transmission structures would be approximately 100 feet taller than the existing structures. Taller structures pose an added risk to aerial applications; however, with consolidation of existing transmission, the proposed structures would replace existing structures in this area that aerial applicators currently work around. The crops are row-irrigated and arranged parallel with the existing transmission lines. Flight patterns for aerial application, flown parallel to the existing transmission lines, would not be impacted

by the increased height of the structures. Safety risks associated with the taller structures would be mitigated by placing aircraft warning balls on the static line that cross agricultural fields.

The Draft EIS indicated that Western would evaluate the potential to consolidate the existing double-circuit 69-kV transmission line with the Proposed Project. Western presently believes that underbuilding the 69-kV circuits on the Proposed Project is viable, and plans to construct the line across the agricultural area using this configuration. Should the double-circuit 69-kV transmission line be consolidated with this project, the existing 69-kV line and structures would be removed, and the existing 35- to 50-foot wide ROW would be reused and widened by 100 to 115 feet for the Proposed Project. The ROW width for the 230-kV Alternative (preferred voltage) would be 150 feet wide. Widening the ROW would not impact agricultural operations, but is required to accommodate conductor swing and to prevent encroachments, and meet utility industry standards. Agricultural operations would continue under the proposed transmission line and within the ROW easement as they are currently conducted.

The Draft EIS identified that if both lines were consolidated, the 69-kV transmission line currently bypassing the Gila Substation would require a connection to a breaker at Gila Substation. The Draft EIS also identified the possibility of consolidating one circuit and underbuilding the remaining circuit. Based on additional engineering since the release of the Draft EIS, it is most likely that both existing 69-kV circuits would be underbuilt on the new structures. This underbuild scenario could require taller structures, closer spacing of structures, a smaller interset pole to support only the 69-kv at intermediate positions, or some combination thereof to be determined during final engineering design if the Proposed Project is approved. Removal of the existing double-circuit 69-kV transmission line would remove 26 existing H-frame structures from agriculture fields in the valley. Following distribution of the Draft EIS, Western identified that the underbuild could be constructed using approximately 1,000-foot spans and would not require an interset or intermediate structure. Based on these considerations, construction of the preferred alignment (combination of the Route Alternative and 230-kV Alternative) with underbuild in the valley would require approximately 19 new single-pole structures parallel to the existing 161-kV transmission line, 2 of which would likely be located in non-cultivated areas adjacent to existing roads and/or canals resulting in 17 new single-pole structures in agriculture fields adjacent to the existing 161-kV transmission line. In addition, 2 new single-pole structures would be constructed in agriculture fields adjacent to Avenue 9E.

In summary, in the agricultural area between Gila and North Gila substations, the Proposed Project:

- Would use the existing utility access road,
- Would use the existing ROW and widen it by 100 to 115 feet,
- Would not restrict farming within the widened ROW,
- Would improve farming practices by replacing double-pole structures with single poles,
- Would place structures in an area of aerial chemical application that currently works around existing structures,
- Would not substantially increase collision risks to aerial chemical applicators,
- Would remove 26 H-frame structures from agriculture fields, and

- Would require approximately 19 new single-pole structures in agriculture fields.

Western anticipates far fewer Proposed Project-related impacts to agriculture in this area as compared with an area that does not have an existing transmission line and access road. In addition, construction of the Proposed Project would likely have an overall improvement in farming safety and a reduction in the amount of existing ground disturbance.

Response #9

Topic: Plant in Mexico/ Enforcement of Standards

Response to Comment Reference Numbers: 4.2, 4.3, 4.4, 15.3, 16.2, 16.2.2, 19.1, 21.20, 23.1, 23.1.2, 29.2, 29.9, 30.10, 33.1, 33.2, 41.1, 41.2, 41.3, 44.3, 45.6, 54.2

Theme of Comments: Comments include selecting a site location in the United States as opposed to Mexico, United States' reliance on power from foreign countries, and enforcement of U.S. regulations on a facility in Mexico.

The San Luis Rio Colorado Project is an independent non-Federal project proposal that was developed by the Applicants. While the United States has a policy of becoming self-sufficient in terms of energy, private companies and investors can continue to develop projects such as this one. If the private proponents can get all the required permits they are free to site proposed projects wherever they choose. The ability for anyone to pursue business opportunities and enterprises as they wish with minimal governmental interference is a basic tenet of American freedom.

As discussed in Section 1.2.6, Applicants' Project Objectives, to remain economically viable the Applicants are basing their Proposed Project on the power plant site already owned by GDD. In addition, the Applicants' power plant site is near enough to the border to allow for private ownership and control of the short transmission line section in Mexico. The location of the transmission line crossing point on the border was, therefore, established and fixed by the location of the proposed power plant in Mexico. The proposed power plant, proposed power plant location, and proposed transmission line from the plant to the border is an independent non-Federal action located in Mexico and, therefore, not subject to NEPA. Furthermore, Executive Order 12114 signed by President Carter lists the exclusive, limited circumstances when NEPA – in the form of a Transboundary Environmental Impact Assessment – is to be applied extraterritorially, and permits for transmission lines are not included in this list.

Within the United States, the Proposed Project requires decisions from Western to grant or deny the Large Generator Interconnection request at its Gila Substation; from DOE OE to grant or deny a Presidential permit for the construction, connection, operation, and maintenance of the proposed transmission line at the United States-Mexico border; from Reclamation to grant or deny ROW requests for portions of the transmission line; and from Department of the Navy to grant or deny a permit to construct a portion of the transmission line across the BMGR. If these requests are granted, they would allow for the siting, construction, connection, operation, and maintenance of the Proposed Project facilities within the United States. If these requests are denied, the Proposed Project facilities within the United States would not be constructed;

however, the Applicants could still build the facilities within Mexico to serve future power needs in Mexico. Federal agency decisions do not reflect support for, or opposition of, proposed projects that may include components in other countries; rather, the decisions solely reflect the need of the agency to respond to an applicant's request.

The EPA reviewed the Draft EIS and concluded that "although the SLRC Power Center would be located within Mexico and not subject to NEPA requirements, the D[raft] EIS evaluates its potential environmental impacts within the United States (U.S.) that may result from its construction and operation." The EPA also supports "the implementation of advanced air emission control technology, a wet-dry cooling system, and use of water from the San Luis Rio Colorado municipal wastewater treatment plant for cooling water." As stated in the Draft EIS, the Applicants have committed to construct and operate the proposed power plant to comply with applicable U.S. environmental standards in addition to those of Mexico's Instituto Nacional de Ecología; this commitment was commended by the EPA. The ability to enforce U.S. law ends at the international border.

At the conclusion of the Presidential permit process, based upon the entire record, including the environmental analysis contained in the EIS, DOE OE will determine whether the issuance of a Presidential permit would be consistent with the public interest. DOE also has the power "to attach to the issuance of the permit and to the exercise of the rights granted thereunder such conditions as the public interest may in its judgment require" (Executive Order 10495, as amended by Executive Order 12038).

Pursuant to that authority, every Presidential permit issued by DOE for the construction, operation, maintenance, or connection of international electric transmission lines contains a condition that prohibits the permit holder from making any physical changes to the permitted transmission line or from changing the way the transmission line is operated without first obtaining permission from DOE. Therefore, if a permit holder connected its permitted transmission lines to a power plant that operated substantially differently from the representations made in the permit application and in the associated NEPA analysis, it would constitute a change in the way the transmission lines were operated and would require additional review by DOE.

If a permit is granted, DOE will determine whether the public interest requires the imposition of any additional conditions affecting the operation of the permitted transmission lines. Imposition of such conditions would be addressed in the Record of Decision.

Response #10

Topic: Relation to other Plans

Response to Comment Reference Numbers: 6.13, 7.7, 7.15.1, 7.15.3, 7.15.33, 7.15.34, 7.15.35, 7.15.36, 21.29, 23.1.3, 24.9

Theme of Comments: Comments include need for of the Proposed Project in light of/relation to other proposed Yuma area projects.

In a deregulated utility industry, individual utilities and independent power producers can, and do, pursue projects independently. Because of competition, which deregulation was intended to foster, the various companies do not share many of their plans so that they can maintain their competitive advantage. In addition, when utilities or independent power producers propose generation and/or transmission projects, they must consider and allow time for planning, permitting, and construction prior to the power resources being available for use. For these reasons, when a need for additional generation or transmission is identified, several companies may propose methods for addressing the needed power resources.

The Arizona Corporation Commission (ACC) finalized their Fourth Biennial Transmission Assessment on January 30, 2007 (ACC 2007). This report states that the Yuma power load is currently served from three transmission sources (APS' North Gila Substation, APS' Yucca generation and substation facility, and Western's Gila Substation). Planned additions for 2008-2015 include a North Gila 500/230-kV transformer, a proposed 230-kV transmission line from North Gila Substation to a proposed TS8 230/69-kV substation, and a second 500-kV transmission line from the Palo Verde area to North Gila Substation. None of these are Western proposed projects. The Yuma 2008 and 2015 RMR studies found that "all existing and planned Yuma area generation and transmission projects are needed to reliably serve the area" (ACC 2007). As identified, projects have been proposed to address the need for additional generation and transmission; however, not all proposed projects are permitted and constructed early enough to address the future estimated power shortages. Another consideration is that not all proposed projects are constructed. For example, the proposed Wellton-Mohawk Generating Facility would have provided additional generation and transmission that could have served the Yuma area; however, due to a lack of funding and other issues that project is now defunct and is no longer a viable option for addressing power needs. Due to the uncertainty of other proposed projects, APS must identify actions that would address their responsibility for meeting local power needs.

As part of their planning process, the Applicants presented the Proposed Project to APS. In addition, APS attended stakeholder meetings and public hearings for the Proposed Project. However, because the Proposed Project is still in the permitting process, APS, as the local utility, must take steps to ensure that generation and transmission resources are available to address the Yuma load pocket and has proposed projects of their own to meet these needs in the event that the Proposed Project is not on-line in time to help address the local power needs.

As identified in Draft EIS Section 5.3, Reasonably Foreseeable Future Actions, both Western and APS have proposed generation and/or transmission system additions or modifications. Western plans to upgrade the current 161-kV transmission system to 230-kV. Western's 161-kV transmission system was developed to bring energy from Parker Dam in the late 1930s and early 1940s; some of the existing transmission structures date from 1945. Standard voltages for the nation's transmission system are trending toward 230-kV as opposed to 161-kV; therefore, as components of Western's 161-kV transmission system need to be replaced, 230-kV capable components are proposed to use current technologies and stay consistent with the power trends of the nation. APS, as the local utility, must ensure that adequate generation and transmission resources are available to serve the load in Yuma.

As previously discussed, in order to meet anticipated power requirements in the future, APS has proposed several projects including a Palo Verde to North Gila 500-kV transmission line, two 48-MW generating units near the Yucca power plant, and 230-kV transmission system expansion in the Yuma area. In recognition of these proposed projects, the 230-kV Alternative (included in the preferred alternative) was evaluated for the Proposed Project because it would be consistent with APS plans for a 230-kV transmission system expansion. The additional generation from the Proposed Project would be consistent with, and provide an option for, filling the needed additional power generation in the area or could be used to fulfill power needs in other areas depending on which utilities enter into agreements with the Applicants. Western's proposed transmission modifications would respond to a need to replace or upgrade outdated facilities, whereas APS' proposed projects would respond to the anticipated need for additional power in the Yuma area. The Applicants state that they proposed the San Luis Rio Colorado Project to develop and construct a power generation and transmission project that would serve regional power needs (see also Response #6, Local Benefit) and could create a possibility to consolidate with a portion of APS' proposed 230-kV transmission project.

Response #11

Topic: Air Quality

Response to Comment Reference Numbers: 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 15.1, 21.18, 21.19, 29.3, 33.3, 45.3

Theme of Comments: Comments include air pollution in the Yuma area resulting from the Proposed Project.

The following summarizes information from the air impact analysis; the full analysis is presented in the Draft EIS, Section 4.3, Air Quality. As discussed in Section 4.3.1, Methodology, air data used for the dispersion modeling included multiple years of observations from Phoenix and Tucson; these data sets were chosen by ADEQ Air Quality Division, who determined the data available for the Yuma area was not suitable for dispersion modeling and analysis. The air analysis was conducted with a commonly used and accepted model approved by the ADEQ Air Quality Division. The results of air modeling, from operation of the proposed power plant, show the estimated maximum contribution for each criteria pollutant to be less than 0.5 percent relative to Arizona Ambient Air Quality Standards (AAAQS); when combined with background levels, the total emissions remained below the AAAQS. AAAQS standards and background levels are listed in table 3.3-3 in the Draft EIS, dashes (--) indicate that state or Federal standards and/or background concentrations have not been designated for that specific averaging period. The results of air modeling from operation of the proposed power plant show the estimated increment consumption relative to PSD to be 1.0 percent or less. Section 4.3.3 Assessment of Impacts also identified that hazardous air pollutant (HAP) concentrations are anticipated to be below the level of concern at the proposed power plant site boundary, which is approximately 1 mile away from the United States border. The air impact analysis concluded that impacts occurring in the United States resulting from operation of the proposed power plant would be less than significant.

The ADEQ Air Quality Division reviewed the Draft EIS and concluded that a General Conformity Determination (i.e., conformity with the State Implementation Plan for coming into compliance with NAAQS) would not be required for the Proposed Project. This is consistent with Western’s finding that the Proposed Project would not require a conformity determination. Nevertheless, construction of the proposed transmission line may temporarily increase levels of ambient particulate matter less than 10 microns or 2.5 microns in diameter (PM₁₀ or PM_{2.5}). To reduce disturbance of PM₁₀ and PM_{2.5} during construction, Western would comply with Arizona Administrative Code Rules pertaining to fugitive dust control (R18-2-604 through 607 [also identified in Section 2.1.1.9, Additional Mitigation Measures] and R18-2-8040) and recommendations provided by ADEQ.

As identified in Response #9, at the conclusion of the Presidential permit process, based upon the entire record, including the environmental analysis contained in the EIS, DOE OE will determine whether the issuance of a Presidential permit would be consistent with the public interest. DOE also has the power “to attach to the issuance of the permit and to the exercise of the rights granted thereunder such conditions as the public interest may in its judgment require” (Executive Order 10495, as amended by Executive Order 12038).

Pursuant to that authority, every Presidential permit issued by DOE for the construction, operation, maintenance, or connection of international electric transmission lines contains a condition that prohibits the permit holder from making any physical changes to the permitted transmission line or from changing the way the transmission line is operated without first obtaining permission from DOE. Therefore, if a permit holder connected its permitted transmission lines to a power plant that operated substantially differently from the representations made in the permit application and in the associated NEPA analysis, it would constitute a change in the way the transmission lines were operated and would require additional review by DOE.

If a permit is granted, DOE will determine whether the public interest requires the imposition of any additional conditions affecting the operation of the permitted transmission lines. Imposition of such conditions would be addressed in the Record of Decision.

Response #12

Topic: Property Values

Response to Comment Reference Numbers: 13.1, 20.1, 30.3, 35.4, 37.4, 42.2, 43.1, 48.3, 49.4, 50.5, 53.4

Theme of Comments: Comments include impacts on property value due to the presence of a transmission line.

Landowners are often concerned that a proposed transmission line may adversely affect property values. There is not a simple answer to this question because many factors affect the market price of real estate. Typically, concerns regarding affects on property values are associated with aesthetics – the transmission line’s impact on the view from a location – or the presence of an easement or ROW located on a property. Several studies have been conducted to determine the

potential change in property values due to proximity of a new transmission line; results are often inconclusive. The following excerpts discuss aesthetics and a summary of research findings, followed by a discussion of easement or ROW location.

The following excerpt, from the State of Wisconsin Public Service Commission pamphlet titled “Environmental Impacts of Transmission Lines”, summarizes the differing views regarding the aesthetic affect of transmission lines (Wisconsin 2004).

The overall aesthetic effect of a transmission line is likely to be negative to most people, especially where proposed lines would cross natural landscapes. The tall steel or wide “H-frame” structures may seem out of proportion and not compatible with agricultural landscapes or wetlands. Landowners who have chosen to bury their electric distribution lines on their property may find transmission lines bordering their property particularly disruptive to scenic views.

Some people however, do not notice transmission lines or do not find them objectionable from an aesthetic perspective. To some, the lines or other utilities may be viewed as part of the infrastructure necessary to sustain our everyday lives and activities. To others, new transmission lines may be viewed in a positive light because it represents economic development.

“The Effects of Overhead Transmission Lines on Property Values, A Review and Analysis of the Literature,” prepared for the Edison Electric Institute by Dr. Cynthia A. Kroll (1992), reviewed existing studies and findings as of 1991. The report noted that some of the shortcomings of research on overhead transmission lines included widely dispersed geographic areas, data limitations, and little opportunity to confirm findings from one study with another. However, based on the available research and with the understanding that methods and analysis may be refined in the future, the following excerpt is the set of findings as taken from that report. Full references for citations within the following excerpt are available in the original report.

- 1) There is evidence that overhead transmission lines have the potential to reduce the value of nearby property. The impacts may occur either through the direct effects of an easement on the property or through the impacts on neighboring or nearby property.
- 2) Where impacts occur, they are often not large. Impacts on single family homes, where they have been measured, are generally in the range of 2 to 10 percent. Many studies of other property types find no effects. The largest impacts identified both in appraiser studies and in econometric research are found in agricultural property and in rural second (vacation) home development. Two of the better-designed studies have found negative effects greater than 10 percent to occur **under some conditions** (Woods Gordon 1981--residential estate properties in agricultural areas, Universite du Quebec a Montreal 1982--second home lots).
- 3) Overhead transmission lines are generally not the major determining factor of property values. Other factors, such as neighborhood characteristics and

characteristics of the land and improvements tend to explain much more of the variation in home prices.

- 4) The spread of effects outward from the transmission line appear to vary from case to case. Often, the effects appear to be confined to the immediate area around the transmission line (e.g. Colwell 1990). However, in one case, an impact was identified for an entire neighborhood (Pacific Consulting Services 1991). Most of the existing research methods do not distinguish between 56 effects produced by visibility of the line (which may occur over a long distance) and effects from other physical features of the line (e.g. inconvenience of a right-of-way on the property, noise effects).
- 5) There is also evidence that overhead transmission lines and their rights-of-way may carry **positive** effects for some property owners. The degree to which this occurs depends very much on the circumstances of the line itself, the neighborhood, and the improvements made to the right-of-way. The finding is most consistent for Canadian cases. In the Canadian studies, the right-of-way is sometimes quite large (over 400 feet in at least one case) and the utility company may allow neighboring farmers to make use of the right-of-way area without charge or for a very low fee. There are characteristics of rights-of-way in the United States, as well, that also lead to improvements of value to neighboring properties. The most frequently mentioned are the advantage of having one less neighbor (e.g. Blanton 1980) and the opportunity to use some rights-of-way for recreational or other purposes (e.g. Pacific Consulting Services 1991). In one attitudinal study, the heavily wooded right-of-way was considered an aesthetic amenity (Rhodeside and Harwell 1988).
- 6) Existing studies provide little evidence that tower height and line voltage are directly related to level of impact. There are cases where relatively small lines affect property values and cases where very large lines do not. However, because of methodological and data limitations, the issue has not been systematically explored.
- 7) Some studies have found that the impacts of transmission lines are greater for smaller properties than for larger properties. This makes sense intuitively, as it is more difficult to design the property use to minimize impacts on smaller lots.
- 8) The two studies that address the question of diminishing impacts over time suggest that this may be the case. However, impacts appear to last for several years at least, affecting property owners who expect to sell within the first few years following transmission line construction.

The following excerpt, from the State of Wisconsin Public Service Commission pamphlet titled “Environmental Impacts of Transmission Lines”, contains a more recent summary of research regarding the affect of transmission lines on property value; however, the findings are similar to those identified above (Wisconsin 2004).

The potential change in property values due to the proximity to a new transmission line has been studied since the 1950s by appraisers, utility consultants, and academic

researchers. Data from these studies is often inconclusive and has not been able to provide a basis for specific predictions in other locations for other projects.

A review of the studies indicates that transmission lines have the following effects on property values.

- The estimated reduction in sale price for single-family homes has ranged from 0 to 15 percent.
- Adverse effect on the sale price of smaller properties could be greater than effects on larger properties.
- Other factors, such as schools, jobs, lot size, house size, neighborhood characteristics, and recreational facilities tend to have a greater effect on sale price than the presence of a transmission line.
- Sale prices can increase where the transmission ROW is attractively landscaped or developed for recreation (i.e., hiking, hunting, and snowmobiling).
- Effects on price and value appear to be greatest immediately after a new transmission line is built or an existing ROW is expanded. These effects appear to diminish over time and over generations of property owners.
- Effects on sale price have most often been observed on property crossed by or adjacent to a transmission line, but effects have been observed for properties farther away from a line
- Agricultural values are likely to decrease if the transmission line poles are in a location that inhibits farm operations.

To the extent practicable, the proposed transmission line would parallel existing or proposed facilities. This approach would minimize the amount of impacts by keeping easements or ROWs with land use restrictions co-located, while the remaining property would maintain the original land use capability. In addition, an easement or ROW located along the edge of a property or adjacent to another easement or ROW would typically result in less impact than an easement or ROW that bisects a parcel. Many land uses that do not interfere with electric transmission lines would be allowed within the easement or ROW, including farming, grazing, dog walking, wildlife viewing, biking, and walking; however, easements located on the BMGR would not be permitted for public use. A few uses are restricted within easements or ROWs, such as constructing permanent structures and occupied dwellings, tall-growing trees, and certain other types of vegetation. As noted above, some individuals view a utility easement or ROW as a benefit because it creates open space for recreational activities, allows agricultural use, or provides a separation between residences, and it is unlikely to be further developed.

As previously stated, data regarding the affect of transmission lines on property values is inconclusive. General findings have been identified but cannot be definitively applied to all areas. This is in part due to the many factors affecting market price such as lot specifications (e.g., water and sewer service, proximity to schools, parks and other amenities, surroundings and community characteristics, topography of the land, road and air transportation accessibility, and neighborhood perceptions), residence specifications (e.g., quality, age, condition, size, and design), and market forces (e.g., buyer's market, seller's market, and length of time listed for sale). In addition, factors that may be valuable to one individual may be a drawback to another

(e.g., proximity to major roadways, schools, commercial areas, and airports). In this specific case, many residents strongly support the Marine Corps and military presence in Yuma. They enjoy watching military activities on the BMGR and have no objection to the noise from the firing ranges or aircraft. Other people, however, would not consider locating near the BMGR for the very same reasons. Similarly, the perception of the transmission line's effect on aesthetics depends on the viewer. Given the multiple factors that could affect property value and the differences in individual perception, it is very difficult to determine the true effect of a transmission line on property values.

Response #13

Topic: Cultural Resources/ Class III

Response to Comment Reference Numbers: 1.1, 1.3, 1.4, 1.5, 1.12, 3.1, 12.1, 12.2, 14.1, 14.2, 14.3, 17.1, 17.2, 17.3, 17.4, 21.26

Theme of Comments: Comments include impacts to cultural resources and results of the Class III Survey.

The U.S. Department of the Interior (DOI) has an overall responsibility to identify, protect, and conserve the trust resources of federally-recognized Indian tribes and tribal members, and to consult with tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal health and safety (Department Manual Release 512 DM 2). The Proposed Project does not involve any legal Indian Trust Assets (Indian Trust Assets may include water rights, lands, minerals, hunting and fishing rights, money, and claims).

Several portions of the Proposed Project area are located within developed areas. Because of the development, many roads and section line roads have been improved. The statement "All construction vehicle movement outside of the ROW normally would be restricted to pre-designated access, contractor required access, or public roads," was intended to refer to construction vehicles traveling on paved, improved, or section line roads when they are not traveling on the Proposed Project ROW. To avoid impacts to cultural resources outside of the ROW, all Proposed Project construction activities would be limited to the ROW where cultural resource surveys have taken place; vehicle travel outside of the ROW would occur only on the existing local road network. To the extent possible, cultural resource sites identified during the Class III survey would be avoided by all Proposed Project activities. Cultural sites that cannot be avoided would be mitigated in accordance with the Programmatic Agreement (PA). Currently, Western is finalizing a PA for signatures among Western, the State Historic Preservation Office (SHPO), affected Federal agencies, Applicants, and all interested Native American Tribes. Western has developed the PA to address the method for handling cultural resources that may be identified in the Proposed Project area. Compliance with the PA provisions would ensure that section 106 requirements are met.

A Class I Survey of the proposed transmission line alignment alternatives was conducted during preparation of the Draft EIS. The Class I Survey identified few previously recorded sites within a 1-mile-wide corridor of either proposed alignment alternative. The Class III Survey was conducted on the Route Alternative because this alternative was identified as the

environmentally preferred alternative, based on the impact analysis of the other resources and anticipated identification of a sparse cultural site density along the alignment. A major factor in this decision was the relative ease of adjusting a transmission line alignment to avoid cultural sites. Typically, individual cultural sites are small enough that they can be spanned or avoided by adjusting structure locations during the design phase of the project. The Class III Survey corridor was 500 feet wide – more than twice the area that would be needed for a ROW – and would allow the transmission line centerline to be engineered to avoid sites identified during the survey. If a site could not be avoided, a minor re-route and survey and/or mitigation would be undertaken. The Class III Survey of the Route Alternative was conducted in December 2006-January 2007, and interested tribes were invited to have a representative present during the survey. The survey identified 48 isolated occurrences, nine previously recorded sites (two prehistoric, seven historic), and five new sites (three prehistoric, two historic). The full report is currently being finalized and will be distributed in accordance with the PA. In addition, an Architectural Evaluation of the visual effects to standing historic sites is being prepared for the Proposed Project

On October 16, 2006, Western met with interested tribes to discuss the Proposed Project. Western will continue to coordinate with tribes and tribally-affiliated interests to identify potential impacts and measures that would be taken to mitigate impacts. The Draft EIS Section 4.5, Cultural Resources, describes the methods for identifying and analyzing impacts to cultural resources. Western’s preferred mitigation is to avoid any identified sites. Cultural sites that cannot be avoided would be mitigated in accordance with the PA. As previously discussed, a 100-percent Class III Survey has been conducted and the report is being finalized.

The terms “cultural resources” and “historic property” are not equivalent; however, some cultural resources may be considered historic properties. Historic property, as defined by the regulations implementing section 106 (36 CFR 800.16 [1][1], “means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.” Cultural resources that fail to meet NRHP eligibility requirements, but possess characteristics that are unique to the Proposed Project area may be further considered under other cultural resources laws, such as the American Indian Religious Freedom Act. The following corrections have been made to clarify the text of the Draft EIS:

Page 199, Paragraph 4, last sentence: ~~Cultural resources~~ Historic properties must meet one or more of the following NRHP eligibility criteria...

Page 200, Paragraph 2, first sentence: Impacts to ~~cultural resources~~ historic properties that are determined to be not eligible under NRHP criteria are not considered to have an effect under NHPA or a significant effect for NEPA, and no further treatment or consideration would be necessary for such sites prior to construction.

Response #14

Topic: Biology

Response to Comment Reference Numbers: 7.15.13, 7.15.14, 7.15.15, 7.15.17, 7.15.18, 21.2, 21.3, 21.4, 21.5, 21.6, 21.7, 21.8, 21.9

Theme of Comments: Comments include biological methods, avian mortality, Migratory Bird Treaty Act, and noxious weeds.

As described in the Draft EIS, sections 3.4 and 4.4, pertaining to biological resources, the portions of the Proposed Project crossing the FTHL MA, the BMGR, and the Gila River retain the most natural character in the Proposed Project area; the BMGR and FTHL MA contain sparse vegetation (Draft EIS, Figure 3.8-2, Key Observation Point 1, is a representative photo of the BMGR; photos of the FTHL MA are included in Response #4). The remaining portions of the Proposed Project area are dedicated primarily to agriculture or are rapidly undergoing development. Appendix B of the Draft EIS contains lists of species observed during a field visit; common species occurring in Sonoran Desertscrub and Riparian Scrublands (vegetation classes within the Proposed Project area); and endangered, threatened, proposed, and candidate and special status species that may occur in Yuma County (as identified by AGFD). These lists, local knowledge, and coordination with the AGFD Yuma Office were used to evaluate biological resources in the Proposed Project area. In addition, a Biological Assessment was provided to USFWS for review. In a letter dated March 26, 2007 (included in Appendix D), USFWS concurred with Western's determinations that the Proposed Project "may affect, but is not likely to adversely affect the federally endangered southwestern willow flycatcher (*Empidonax trailii extimus*; flycatcher), Yuma clapper rail (*Rallus longirostris yumanensis*; clapper rail), California brown pelican (*Pelecanus occidentalis californicus*, pelican), and the threatened bald eagle (*Haliaeetus leucocephalus*)."

To minimize bird collisions, the overhead static wires at river crossings would be marked with devices using the best currently available technology to alert birds to an obstacle. Overall, bird strikes as a result of the Proposed Project are anticipated to be few because the Proposed Project would comply with guidelines recommended in the Avian Protection Plan Guidelines (APLIC and USFWS 2005). Complying with Avian Protection Plan Guidelines and marking the overhead static wires with the best currently available technology at the Gila River crossing would minimize bird collisions to insignificant levels.

Western burrowing owls, loggerhead shrikes, and California brown pelicans have been observed on the BMGR. Nesting birds protected under the Migratory Bird Treaty Act may occur within the Proposed Project area. During the breeding season, a preconstruction surveys for nesting birds listed at 50 CFR 10.13 (Migratory Birds) would be conducted before any ground-disturbing activities would occur. A written report of the birds documented on the BMGR would be submitted to the MCAS Yuma biologist and USFWS.

In compliance with MCAS Yuma request, Western would wash the undercarriage of all vehicles prior to entering the BMGR to prevent the introduction and/or spread of noxious weeds.

Response #15

Topic: Electric and Magnetic Fields

Response to Comment Reference Numbers: 24.2, 30.2, 30.5, 30.7, 30.8, 42.1, 42.3, 43.2, 48.4, 49.6

Theme of Comments: Comments made in regard to health concerns associated with an electric transmission line have been included in this electric and magnetic field (EMF) response because the health concern debate regarding electric transmission lines typically focuses on EMF.

Section 3.12.2 of the Draft EIS presents a summary of EMF research and conclusions, as well as a list of websites that provide information on EMF. The following text is taken from that section:

Both current and voltage are required to transmit electrical energy over a transmission line. The current, a flow of electrical charge measured in amperes, creates a magnetic field. The voltage, the force or pressure that causes the current to flow measured in units of volts, or kilovolts (kV), creates an electric field. Both fields occur together whenever electricity flows, hence the general practice of considering both as EMF exposure. Transmission lines, like all electrical devices and equipment, produce EMFs. Electric field strength is usually constant with a given voltage, while magnetic field strength can vary depending on the electrical load, design of the transmission line, and configuration and height of conductors. Both the magnetic field and the electric field decrease rapidly, or attenuate, with distance depending on the source.

Research related to possible adverse health effects of EMF has been in progress for more than 30 years and has studied the relationship, if any, of EMF to human, plant, and animal health. The balance of scientific evidence to date does not conclusively demonstrate a relationship between EMF and adverse health effects. Scientific research continues on a wide range of questions relating to EMF exposure and is expected to continue for several more years.

No Federal regulations have established environmental limits on the strengths of EMF from transmission lines. Some States have set guidelines or standards on EMF for newly constructed lines, but each is based primarily on maximum fields that are produced by existing lines, and not on factual health data. Most of Western's existing transmission lines would meet those existing guidelines or standards.

Sources of existing EMF in the vicinity of the Proposed Project are the existing transmission lines, distribution feeds to homes and businesses, commercial wiring and equipment, and common household wiring and appliances for residences and communities in the area. EMF field levels in homes and businesses vary widely with wiring configurations, the types of equipment and appliances in use, and proximity to these sources.

Additional information on EMF is available from the following resources:

- California Department of Health Services, California EMF Program; web site located at <http://www.dhs.ca.gov/ps/deodc/ehib/emf/general.html>
- Medical College of Wisconsin, Electromagnetic Fields and Human Health; web site located at <http://www.mcw.edu/gcrc/cop/powerlines-cancer-FAQ/toc.html>
- Environmental Health Information Service; web site located at <http://ehis.niehs.nih.gov/>
- Microwave News; web site located at <http://www.microwavenews.com>
- World Health Organization; web site located at <http://www.who.int/emf>

Section 4.12.3.1 of the Draft EIS identifies electric and magnetic fields for 500-kV and 230-kV transmission lines. The summary of findings is presented as follows:

Over the past 25-30 years, hundreds of studies have been performed to examine if power-frequency (60-Hz) electric and magnetic fields pose a potential human health risk. The majority of the scientific studies have been conducted in the following research fields: epidemiology, laboratory cellular research, and animal studies. In the United States and internationally, expert scientists from a variety of disciplines were assembled to review this very large body of research material and to assess the potential health risk. Major reviews of the existing research have concluded that the current body of scientific evidence does not show that exposure to power-frequency (60-Hz) electric and magnetic fields represent a human health hazard. Key considerations in these scientific findings have been the weakness of the epidemiological studies, inconsistent and inconclusive epidemiological findings, the inability of epidemiology to identify a dose-response relationship, little or no replication of observed results, and the lack of support from laboratory research. The laboratory studies that have examined exposure of cells, tissue cultures, and a variety of animal species to EMF have been essentially negative. Despite over 30 years of research, EMF exposure has not been proven to be a human health factor. Section 3.12 provides additional information on EMF research.

During normal operation, magnetic fields at the edge of the ROW would be well below the recommended guidelines of the International Commission on Non-Ionizing Radiation [833 milligauss (mG)] and the American Conference of Governmental Industrial Hygienist [1,000 mG]; however, the levels would be approximately 1 mG higher than the recommended National Academy of Sciences guidelines [0.1 to 3.0 mG]. The magnetic field level would fall below the National Academy of Sciences guidelines a short distance outside the ROW, and in any case no residences would be located at the very edge of the ROW. During periodic maintenance activities, the magnetic field at the edge of the ROW would be slightly higher; however, this would be less than 1 percent of the time, and the resulting EMF would still be comparable with other existing transmission lines. Impacts to health and safety from EMF would be less than significant.

The location of the proposed transmission line would not be close enough to residences to cause elevated EMF levels. Residents are constantly exposed to EMF fields inside their own homes from appliances, computers, televisions, and other electrical equipment, and from the wiring within the houses. A typical American home has a background magnetic field (away from any appliances) that ranges from 0.5 mG to 4 mG, with an average value of 0.9 mG. Given that EMF

from the proposed transmission line would attenuate before reaching residences, there would be no long-term exposure and, therefore, no potential for adverse health effects.

Response #16

Topic: Radio and Television Interference

Response to Comment Reference Numbers: 21.27, 30.4, 30.6, 30.9

Theme of Comments: Comments include radio and television interference.

Section 3.12.3 of the Draft EIS provides the following information on corona and the potential for radio and television interference.

Corona is a luminous discharge that is the electrical breakdown strength of air into charged particles caused by the electrical field at the surface of conductors. Corona is of concern for potential to contribute to power loss, radio and television interference, audible noise (60-cycle hum), and photochemical reactions. Corona can occur on the conductors, insulators, and hardware of an energized high-voltage transmission line. Corona on conductors occurs at locations where the field has been enhanced by protrusions, such as nicks, dust, insects, or drops of water. During fair weather, the number of these sources is small, and the corona effect is insignificant. However, during wet weather, the number of these sources increases and corona effects are much greater (DOE 2005a).

The Electric Power Research Institute (EPRI) reports that “Corona and arcing activity may occur at numerous points in overhead transmission, substation, and distribution power systems. This activity may result in audio noise or radio interference complaints or indicate a defective component that may be close to failure. If the offending component can be located, it can be replaced.” (EPRI 2001)

Radio and Television Interference. Corona-generated radio interference is most likely to affect the amplitude modulation (AM) broadcast band (535 to 1,605 kilohertz); frequency modulation (FM) radio is rarely affected. Only AM receivers located very near to transmission lines have the potential to be affected by radio interference. The potential for interference from corona effects is more severe during damp or rainy weather.

Corona have been studied and are well understood by engineers (EPRI 1982) because power loss is uneconomical and noise and interference are undesirable. Consequently, steps to minimize coronal discharge is one of the major factors in transmission line design for extra high voltage transmission lines (345 to 765 kV). Coronal discharge is usually not a design issue for power lines rated at 230 kV and lower; interference levels both in fair weather and in rain are extremely low at the ROW edge for 230 kV and lower transmission lines, and will usually meet or exceed reception guidelines of the Federal Communications Commission (PG&E 2005).

Satellite TV signals are much higher frequency than 60-hertz line frequencies, and are not affected by transmission line operation, corona, or EMF. Cable TV service is likewise

unaffected. Specific instances of broadcast TV reception are nearly always related to spark-gap discharges due to loose, worn, or defective hardware. Western operates about 17,000 miles of transmission lines, and radio or TV interference issues are rarely reported; issues are resolved by maintenance crews on a case-by-case basis when they are reported. No significant impacts to radio or TV reception is anticipated as a result of constructing and operating the Proposed Project. In the unlikely event a problem is encountered, Western will work with the affected party to eliminate any interference.

Response #17

Topic: International Boundary

Response to Comment Reference Numbers: 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.12, 5.13, 5.14

Theme of Comments: Comments include activities near or involving the United States-Mexico international boundary.

The United States Section, International Boundary and Water Commission (USIBWC), reviewed the Draft EIS and provided information clarifying the distinction between the USIBWC and the Mexico Section, International Boundary and Water Commission (MXIBWC). Textual clarifications/corrections are listed in Response #21.

A Presidential Proclamation was signed on May 27, 1907, to keep a 60-foot-wide strip of land adjacent and parallel to the border free of obstruction to protect against the smuggling of goods between Mexico and the United States; the Proposed Project would span this area so that no structures would be placed within the obstruction-free area. In addition, the USIBWC has a duty to access, maintain, and utilize the boundary monuments along the United States-Mexico international boundary and requires that projects not affect the permanence of boundary monuments or the line-of-sight visibility between monuments. To satisfy USIBWC concerns, Western would submit final engineering drawings of the border crossing for review and approval by USIBWC prior to beginning any construction and would comply with measures to maintain international border safety and security.

Response #18

Topic: Water Regulations

Response to Comment Reference Numbers: 5.6, 7.15.16, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.8, 9.10, 9.11, 9.13, 11.2

Theme of Comments: Comments include compliance with water-related regulations.

ADEQ Water Quality Division reviewed the Draft EIS and determined that the document “adequately identifies the potential impacts to water resources, water quality and soils.” ADEQ noted that the Proposed Project would cross the Gila River and it appears that most of the “drainages that may be affected by this project are ephemeral drainages.” ADEQ also “outlined the various permitting requirements in the event that the project gains approval and moves to

construction.” These permits could include Arizona Pollution Discharge Elimination System (AZPDES) Permit, Stormwater Pollution Prevention Plans (SWPPPs), De Minimus General Permit (DGP), Best Management Practice (BMP) Plan, Section 404 Permit under the Clean Water Act, and State Clean Water Act Section 401 Permit. In accordance with ADEQ, Western would comply with all permitting requirements for the Proposed Project should it be approved. For lands on the BMGR, Western would submit Notice of Intent, BMPs, and Notice of Termination to MCAS Yuma for review prior to submittal to ADEQ. In addition, Western conducted a Waters of the United States delineation and characterization survey of the preferred alternative (Route Alternative) in December 2006 and submitted the report to the U.S. Army Corps of Engineers (USACE) in January 2007. In a letter dated March 1, 2007 (included in Appendix D), USACE determined that “although the proposed project area does include jurisdictional waters, your proposed project does not discharge dredged or fill material into a water of the United States or an adjacent wetland. Therefore, the project is not subject to our jurisdiction under Section 404 of the Clean Water Act, and no Section 404 permit is required from our office.”

Response #19

Topic: Alignment

Response to Comment Reference Numbers: 1.9, 2.2, 6.2, 6.3, 6.5, 6.6, 6.7, 7.2, 7.3, 7.12, 7.15.7, 7.15.8, 13.2, 16.1.1, 16.1.2, 16.2.1, 16.3.1, 16.3.4, 13.1, 20.1, 20.2, 22.1, 22.2, 22.3, 22.4, 22.5, 23.1.1, 23.2.1, 24.3, 24.8, 24.10, 25.1, 27.1, 29.1, 29.5, 30.1, 31.3, 32.2, 33.10, 38.1, 39.2, 47.2, 49.1, 50.1, 53.1, 53.3, 54.11, 54.14

Theme of Comments: Comments include location of alignment, representation on maps, and support for and opposition of the alignments/ Proposed Project.

The Draft EIS figures illustrating the location of proposed alternatives are representative in nature. The proposed alignments are represented on the figures as ½-mile-wide corridors to clearly demonstrate their general locations and were used for data collection and impact assessment. The ½-mile-wide corridors are typically based on an existing feature (e.g., transmission line, road, canal, etc.) or create a connection between two existing features. Should the Proposed Project be approved, the location of the transmission centerline within the ½-mile-wide corridor would be determined during final engineering and through coordination with affected landowners.

Western conducted a routing analysis and feasibility study to determine the viability of potential alternatives for the Proposed Project. Figure 2.2-1, Potential Transmission Line Routing Segment Options, illustrates the Applicants’ Proposed Action and proposed segment options. The Route Alternative was created from a combination of the Applicants’ Proposed Action and several proposed segment options; the remaining segment options were eliminated from detailed analysis and described in section 2.4 along with an evaluation of the area to the west of the proposed alignments, to the east of the proposed alignments, in the Gila Mountains, and underground.

As part of the NEPA process, Western strives to minimize environmental impacts in general, and to balance resource trade-offs where impacts are unavoidable. Western respects the opinion of the reviewers of and commenters on the Draft EIS and notes the support for and opposition of various segments of the alternatives as well as those in opposition of the Proposed Project in its entirety. Scoping meetings, public hearings, and public review and comment on the Draft EIS are all opportunities for interested parties to identify their principle concerns, identify missing or faulty analysis, and provide additional data. This input helps Western avoid unnecessary impacts to the extent possible and has been directly responsible for several refinements to the Proposed Action.

Response #20

Topic: Contact Information

Response to Comment Reference Numbers: 1.11, 2.4, 3.2, 4.5, 5.10, 6.15, 7.1, 8.7, 9.7, 9.9, 9.12, 9.14, 10.3, 11.3, 12.3, 14.4, 17.5

Thank you for providing contact information and offering your assistance.

Response #21

Topic: Corrections

Response to Comment Reference Numbers: 1.14, 5.15.1-5.15.9, 7.15.2, 7.15.4, 7.15.38, 7.15.39, 21.33, 21.34

Individual corrections are listed by comment number and location of text within the Draft EIS. Material within a paragraph that has been deleted is shown by a ~~strikeout~~ and added text is underlined.

Correction identified by Western on Page 30, Section 2.1.1.4, Paragraph 2
 Construction of the proposed transmission lines would take place 6 days per week, 10 hours per workday, over a period of approximately 12 months, ~~and would commence in June 2007.~~ The Applicants propose to begin construction of the Proposed Project in November 2007, start up in August 2009, and commence normal operation in November 2009.

Correction identified by Western on Page 91, Table 3.3-3, row pertaining to PM_{2.5}. Text revised to reflect revised PM_{2.5} standard (effective December 18, 2006). Please note that this revised standard does not change the air quality impact analysis determination that impacts from the proposed power plant would be less than significant.

Table 3.3-3. Ambient Air Quality Standards

Pollutant	Averaging Period	Standards and Background (µg/ m ³) ^a			
		Arizona Primary Standards	Arizona Secondary Standards	California Standards	Background Concentration ^b
PM _{2.5}	Annual	15	15	12	--
	24-hour	65 35	65 35	--	--

Correction identified by Western on Page 175, Table 4.3-4, addition of following footnote:

Note: The column for PM₁₀ point emissions includes estimated tailpipe emissions of both PM₁₀ and PM_{2.5}; therefore, the total PM₁₀ emissions column also includes total estimated emissions of both PM₁₀ and PM_{2.5} during proposed transmission line construction.

Response to Comment 1.14 – Page 6, Full Paragraph 2

The BLM Yuma Field Office manages land and resources encompassing ~~4.6 million~~ 1.3 million acres of southwestern Arizona and southeastern California.

Response to Comment 5.15.1 – Page XIII-XIV, Table S-2

Table S-2. Scoping Comment Summary

Topic	Comment/Concern/Issue	Treatment in the EIS
Water	<ul style="list-style-type: none"> Request a letter from Comision Nacional del Agua and the Mexican <u>Mexican Section of the International Boundary and Water Commission</u> verifying the approved legal use of water for the generating facility 	<p>Comment noted. <u>The United States Section of the International Boundary and Water Commission is in charge of limiting the groundwater pumping to the agreed on quantity on the United States side within the 5-Mile Zone while the Mexican Section of the International Boundary and Water Commission is in charge of limiting pumping in the 5-Mile Zone on the Mexican side.</u> Water use within a 5 Mile Zone on either side of the border is under regulation by the International Boundary and Water Commission (IBWC). Water use within Mexico in the 5 Mile Zone of the border is under regulation by the Comisión Internacional de Limites y Aguas (CILA). Permits obtained in Mexico for the Proposed Project are summarized in an appendix to the EIS.</p>

Response to Comment 5.15.2 – Page 9, Table 1.3-1

Table 1.3-1. Stakeholder Meetings

Date	Location	Attendees
February 7, 2006	Yuma County Water Users' Association	Yuma County Water Users' Association, Wellton-Mohawk Irrigation and Drainage District, Western, NBR
	<u>United States Section, International Boundary and Water Commission – Yuma Office</u>	<u>United States Section, International Boundary and Water Commission, Western, NBR</u>
	Yuma County – Department of Development Services	Yuma County Planning Department, City of San Luis Planning Department, Western, NBR

Response to Comment 5.15.3 – Page 14, Table 1.3-3

Table 1.3-3. Scoping Comment Summary

Topic	Comment/Concern/Issue	Treatment in the EIS
Water	<ul style="list-style-type: none"> Request a letter from Comision Nacional del Agua and the Mexican <u>Mexican Section of the International Boundary and Water Commission</u> verifying the approved legal use of water for the generating facility 	<p>Comment noted. <u>The United States Section of the International Boundary and Water Commission is in charge of limiting the groundwater pumping to the agreed on quantity on the United States</u></p>

Table 1.3-3. Scoping Comment Summary

Topic	Comment/Concern/Issue	Treatment in the EIS
		<p>side within the 5-Mile Zone while the Mexican Section of the International Boundary and Water Commission is in charge of limiting pumping in the 5-Mile Zone on the Mexican side. Water use within a 5 Mile Zone on either side of the border is under regulation by the International Boundary and Water Commission (IBWC). Water use within Mexico in the 5 Mile Zone of the border is under regulation by the Comisión Internacional de Límites y Aguas (CILA). Permits obtained in Mexico for the Proposed Project is summarized in an appendix to the EIS.</p>

Response to Comment 5.15.4 – Page 32, Paragraph 1

Engineering plans would incorporate National ~~Pollution~~ Pollutant Discharge Elimination System (NPDES) permitting requirements to prevent local increases in runoff from areas of construction.

Response to Comment 5.15.5

Comment noted. Minute No. 242 Point 5 is specified in Section 3.2.2, Groundwater, on page 84 in the first full paragraph. Minute No. 242 Point 6 is added toward the end of that paragraph as follows:

Prior to the enactment of P.L. 93-320 (which authorized the PRPU) and Minute No. 242 (which effects pumping limitations), groundwater underflows were affected by withdrawals of groundwater in Mexico from the San Luis Mesa Well Field immediately south of the United States-Mexico border (Reclamation 2006). To fulfill treaty obligations (1.5 million acre-feet to Mexico), Minute No. 242 provided an accounting system whereby groundwater withdrawals were credited against total water deliveries from all sources. Minute No. 242 Point 5 stipulates that the United States and Mexico would limit groundwater pumping within each country to 160,000 acre-feet annually within the 5-Mile Zone. Current pumping rates are far below this maximum. The 2004 pumping total for the 242 Well Field was 23,449 acre-feet (Reclamation 2006). This water is delivered to the southern international boundary for use by Mexico. Any new land uses within the 5-Mile Zone requiring groundwater pumping must be permitted by Reclamation and must be considered significantly beneficial for the general public. In addition, Minute No. 242 Point 6 stipulates that the “United States and Mexico shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources, or undertaking substantial modifications of present developments, in its own territory in the border area that might adversely affect the other country.”

Response to Comment 5.15.6 – Page 169, Full Paragraph 1

Within the United States, the United States Section of the International Boundary and Water Commission (USIBWC) is responsible for applying boundary and water treaties and settling related disputes along the border. ... The Proposed Project has been ~~developed~~ presented to contacts within agencies in both the United States and Mexico.

Response to Comment 5.15.7 – Page 267, Federal Agencies Section
United States Section, International Boundary and Water Commission

Response to Comment 5.15.8 – Page 273, Federal Agencies Section
United States Section, International Boundary and Water Commission

El Paso
 Yuma

Response to Comment 5.15.9 – Pages xii and xiii, Acronyms
 USIBWC United States Section, International Boundary and Water Commission
 NPDES National Pollution Discharge Elimination System

Response to Comment 7.15.2 – Page XI, Table S-2

Table S-2. Scoping Comment Summary

Topic	Comment/Concern/Issue	Treatment in the EIS
Health & Safety	<ul style="list-style-type: none"> • Impacts of the Proposed Project on radio, television, cell phones, and satellite dishes • Impacts to human health from electric and magnetic fields • Potential for cancer caused by high-voltage transmission lines • Electromagnetic interference with existing Marine Corps operations, particularly at Cannon Air Defense Complex 	<p>Transmission lines normally do not affect the operation of radios, TVs, cell phones or satellite signal reception unless there is a hardware problem on the transmission line such as a loose connection or damaged insulator. Once identified, these problems are nearly always easily corrected (sections 3.12.3).</p> <p>Impacts to human health from electric and magnetic fields and the potential for cancer is addressed in the Health and Safety sections (3.12 and 4.12).</p> <p>After reviewing Proposed Project information, MCAS Yuma determined that the Proposed Project does not appear to present <u>electromagnetic</u> interference problems for MCAS operations (section 4.6 Land Use).</p>

Response to Comment 7.15.4 – Page 12, Table 1.3-3

Table 1.3-3. Scoping Comment Summary

Topic	Comment/Concern/Issue	Treatment in the EIS
Health & Safety	<ul style="list-style-type: none"> • Impacts of the Proposed Project on radio, television, cell phones, and satellite dishes • Impacts to human health from electric and magnetic fields • Potential for cancer caused by high-voltage transmission lines • Electromagnetic interference with existing Marine Corps operations, particularly at Cannon Air Defense Complex 	<p>Transmission lines normally do not affect the operation of radios, TVs, cell phones or satellite signal reception unless there is a hardware problem on the transmission line such as a loose connection or damaged insulator. Once identified, these problems are nearly always easily corrected (sections 3.12.3).</p> <p>Impacts to human health from electric and magnetic fields and the potential for cancer is addressed in the Health and Safety sections (3.12 and 4.12).</p>

Table 1.3-3. Scoping Comment Summary

Topic	Comment/Concern/Issue	Treatment in the EIS
		After reviewing Proposed Project information, MCAS Yuma determined that the Proposed Project does not appear to present <u>electromagnetic</u> interference problems for MCAS operations (section 4.6 Land Use).

Response to Comment 7.15.38 – Appendix B, Table 3
Great-tailed grackele

Response to Comment 7.15.39 – Appendix B, Table 4
Comment noted, please note that the flat-tailed horned lizard is currently listed in the table under reptiles.

Response to Comment 21.33 – Page 85, Paragraph 2
The majority of the rainfall events normally occur during the summer monsoon (July through September), a lesser “rainy” season occurs October through March.
Comment 21.33 – Page 167, Section 4.2.3.1, Paragraph 1
Most of the rainfall events normally occur during the summer monsoon (July through September), a lesser “rainy” season occurs October through March.

Response to Comment 21.34 – References
Any omissions from the References chapter were unintentional. The following references are for the citations identified in Comment 21.34:

BECC 2004 Border Environment Cooperation Commission (BECC) 2004. Environmental Assessment of the Effect on San Luis, Arizona by the Proposed Construction of a Wastewater Treatment Plant and Improvements to the Wastewater Collection System for San Luis Rio Colorado, Sonora. May 2000. [Web Page]. Located at http://www.cocef.org/aproyectos/SLRC_EA16MAY00.PDF

Peterson 2006 Personal communication with Chris Peterson, Director, Government Affairs, Union Pacific Railroad. August 18, 2006.

Reclamation 1976 The original reference for the citation “Reclamation 1976” cannot be located. However, the Southern California Earthquake Data Center identifies the Yuma Desert and Pilot Knob stations as well as several other stations in the Imperial Valley and near the Proposed Project area. [Web Page]. Located at: <http://www.data.scec.org/stationinfo.html>. Additional seismic activity information is also available from the Arizona Earthquake Information Center. [Web Page]. Located at: <http://www4.nau.edu/geology/aeic/aeic.html>.

Stearns-~~Stearns~~ et al. 1985 Stearns, Conrad, Schmidt and Landau Associates (Stearns et al.) 1985. Initial Assessment Study of the Marine Corp Air Station, Yuma, Arizona. September 1985.

- USACE 2001 U.S. Army Corps of Engineers (USACE) 2001. Final Summary Report: Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest. U.S. Army Corps of Engineers, South Pacific Division, June 2001. [Web Page]. Located at http://www.spl.usace.army.mil/regulatory/jd_guide.pdf. Accessed: April 2006.
- Wilson 2000 Owen, Sandra J., Richard P. Wilson, Michael C. Carpenter, and James B. Fink (Owen et al.) 2000. Method to Identify Wells that Yield Water that will be Replaced by Water from the Colorado River Downstream from Laguna Dam in Arizona and California. USGS Water-Resources Investigation Report 00-4085.
- Owen et al. 2000 Also related is the following reference: Wilson, E. D., 1960. Geologic Map of Yuma County, Arizona: Tucson, Arizona Bureau of Mines, scale 1:375,000.

Response #22

Topic: Other

Response to Comment Reference Numbers: 1.6, 1.7, 1.8, 1.13, 1.16, 1.18, 2.1, 4.1, 4.4, 5.11, 6.9, 6.10, 6.11, 7.1, 7.15.9, 7.15.10, 7.15.11, 7.15.15, 7.15.20, 7.15.23, 7.15.24, 7.15.25, 7.15.26, 7.15.27, 7.15.28, 7.15.29, 7.15.30, 7.15.31, 7.15.32, 10.1, 10.2, 12.2, 15.9, 16.1.5, 18.1, 18.4, 18.5, 21.28, 21.30, 21.32, 21.35, 22.6, 23.3.3, 24.1, 24.4, 24.6, 24.7, 30.3, 31.1, 35.1, 35.6, 35.7, 37.1, 37.6, 37.7, 39.1, 44.1, 44.4, 45.2, 46.1, 47.1, 54.1, 54.3, 54.4, 54.5, 54.6, 54.9, 54.10, 54.13

Thank you for your comments. The following comments were noted in preparation of the Final EIS and will be included in the Administrative Record for this EIS: 1.8, 1.16, 2.1, 4.4, 5.11, 6.9, 6.10, 6.11, 7.1, 7.15.9, 7.15.10, 7.15.11, 7.15.15, 7.15.20, 7.15.23, 7.15.24, 7.15.25, 7.15.26, 7.15.27, 7.15.28, 7.15.29, 7.15.30, 7.15.31, 7.15.32, 10.1, 10.2, 12.2, 15.9, 16.1.5, 18.4, 21.30, 21.32, 21.35, 22.6, 23.3.3, 24.4, 30.3, 31.1, 33.9, 35.1, 35.6, 35.7, 37.1, 37.6, 37.7, 44.4

Summary of Comment 1.6: What other laws, Executive Orders, Secretarial Orders, etc. may also be considered during the NEPA process?

Response: The following Federal and State mandates apply to the Proposed Project

- Federal Mandates
 - National Environmental Policy Act of 1969 as amended (42 USC 4321-4347);
 - Endangered Species Act of 1973 as amended (16 USC 153);
 - Clean Water Act of 1977 (33 USC 1251 et seq.);
 - Clean Air Act as amended (42 USC 7401 et seq.);
 - National Historic Preservation Act as amended (16 USC 470);
 - American Indian Religious Freedom Act of 1978 (42 USC 1996) and Religious Freedom Restoration Act of 1993 (42 USC 2000);
 - Archaeological Resources Protection Act of 1979;
 - Archaeological and Historic Preservation Act of 1974;
 - National Historic Preservation Act of 1996 as amended;
 - Native American Graves Protection and Repatriation Act (PL 101-601);
 - Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.);
 - Occupational Safety and Health Act of 1976; and
 - Executive Order 12898, Environmental Justice.

- State Mandates
 - Arizona Native Plant Law; and
 - Arizona Air Quality Standards.

Summary of Comment 1.7: Suggest scoping comments and responses, example of tribal consultation and/or scoping letter, and SHPO and/or U.S. Fish and Wildlife Service (USFWS) consultation letters be included in EIS.

Response: Scoping comments and responses are summarized in Table S-1, Scoping Comment Summary, and Table 1.3-3, Scoping Comment Summary. The Class III Survey report is being finalized and consultation with SHPO and tribes is ongoing. Letters from USACE and USFWS are included in Appendix D.

Summary of Comment 1.13: It is unclear if the proposed roads are counted as permanent disturbance.

Response: The actual location and length of access roads would be determined during detailed project design; therefore, the proposed roads are not included in the permanent disturbance total. However, the following information was provided in chapter 2 of the Draft EIS and used to help analyze Proposed Project impacts. The majority of the Proposed Project would use existing access roads and/or section line roads for access to the structures. Short spur roads of 100 to 150 feet long by 30 feet wide, of which 12 feet to 20 feet would be disturbed, could be needed where the Proposed Project would parallel an existing road. In addition, the Applicants' Proposed Action would require 4.4 miles of new access in the FTHL MA and approximately 5 miles of new access across the northwest corner of the BMGR. The Route Alternative would require 2.8 miles of new access within FTHL MA and approximately 5.25 miles of new access across the northwest corner of the BMGR. Access road location would be evaluated during detailed project design for the Proposed Project and consist primarily of overland travel. Any new access created on the BMGR would be coordinated with MCAS Yuma and access and use would be restricted. Access roads would be used primarily for construction of the Proposed Project; once constructed, the access would be used about once a year for maintenance. Discussion of new access roads within the FTHL MA is included in Response #7, Cumulative Impacts.

Summary of Comment 1.18: This paragraph [4.11.3 Assessment of Impacts] should focus on environmental justice not cultural resources.

Response: The environmental justice impacts are fully analyzed in the subsections within section 4.11.3. The introductory paragraph was included to demonstrate that Western considers Native American concerns as part of the environmental justice analysis. Cultural resource studies are now completed, and the results will be made available to interested tribes. Western will continue coordination with tribes under the PA to identify potential impacts and mitigation measures.

Summary of Comment 4.1: Combination of Route Alternative with the 230-kV Alternative as preferred alternative, EPA rated the Draft EIS as Lack of Objections (LO). Rating is based on recognition that the preferred alternative would require a narrower ROW and shorter and less massive structures, reducing impacts to FTHL and other sensitive species as well as visual impacts.

Response: EPA's rating is noted. Western also understands that the Final EIS is subject to the same approval system and has developed this response document to address comments submitted in response to the Draft EIS.

Summary of Comment 18.1: Concerned about how this project was noticed and the failure to engage a broad range of interest.

Response: Western held stakeholder meetings with 16 groups in February 2006; Table 1.3-1, Stakeholder Meetings, lists the dates, locations, and attendees of these meetings. Four public scoping meetings were hosted by Western during the public scoping process; Table 1.3-2, Public Scoping Meetings, lists the meeting locations, dates, times, and attendance. Notice of scoping meetings was announced using various methods including publication in the Federal Register, three advertisement announcements in the Yuma Sun, two advertisement announcements in the Bajo El Sol, and a local NOI mailer that was sent in English and Spanish to a distribution list, which included over 1,150 government officials, agencies, tribes, organizations, and potentially affected landowners within 1 mile of the proposed alternatives. Notice of public hearings for the Draft EIS was announced by two advertisement announcements in the Yuma Sun, one advertisement announcement in the Bajo El Sol, and a local mailer sent to the distribution list. Copies of newspaper announcements and the local notice mailings for scoping meetings and the public hearings are included in Appendix C. In addition, the Yuma Sun published several articles and letters to the editor regarding the Proposed Project, which were not submitted or sponsored by Western (Yuma Sun 2006d, 2006e, 2006f, 2006g, 2006h, and 2006i).

Summary of Comment 18.5: We ask that you extend the comment deadline on this important proposal so the larger public can adequately review and comment on it.

Response: The original close of the public comment period was December 27, 2006, a 45-day comment period as established by law. In response to several comment period extension requests, Western extended the comment period to January 10, 2007. Comments that were received following the close of the comment period and prior to release of this document were also considered in preparation of this document.

Summary of Comment 21.28: One of the potential impacts not evaluated by the Draft EIS is transmission line towers being blown over by intense weather conditions. This actually happened to a Southern California Edison tower on the Devers-Palo Verde No. 1 line in July, 2006 (Bowles 2006). The likelihood and effects of this kind of event should be assessed in the Draft EIS.

Response: Transmission lines are designed with local weather conditions, including extreme conditions, in mind. Wind and ice loadings are taken into account; in desert areas heat effects are also considered, especially for conductor sag. Even when designed with an extra margin for adverse conditions, no transmission line can withstand extreme, anomalous conditions such as tornados or microbursts. Such extreme weather conditions cannot be predicted, either in time or place. However, should such an event happen, maintenance crews would mobilize to repair the damage by repairing or replacing structures and hardware, putting the conductors and ground wires back up, and removing any components not salvageable. Impacts would be limited to the area where the damage occurred, and in that area would be very similar to those analyzed for the initial construction of the Proposed Project.

Summary of Comment 24.1: The document says that the distance from North Gila Substation to Gila Substation is five miles. It's a little more than that, probably closer to seven miles.

Response: The length of the existing transmission line between the Gila Substation and North Gila Substation as measured using Geographic Information Systems (GIS) is 5.1 miles.

Summary of Comments 24.6 and 24.7: A 230-kV transmission line can carry 1,500-megawatts (MW), which is three-times the capacity of the proposed power plant. A double-circuit line would carry six-times the capacity of a 550-MW plant.

Response: The proposed power plant would operate at a nominal 550 MW, with a peaking capability of 605 MW. A single circuit of the proposed 230-kV transmission line would be rated for 800-MW continuous capability, which would allow the full amount of either normal or peaking generation to be transported on a single circuit of the transmission line. The addition of a second circuit would double the capacity of the proposed transmission line for a total capacity of 1,600 MW. The addition of the second circuit improves the reliability of the proposed transmission line by creating another path to carry power in case one of the two circuits requires maintenance. Most generation plants have more than one transmission pathway to market for this reason, and in some cases a second path is mandatory. The additional circuit would also allow for additional power resources to be transported by the proposed transmission line, such as the possibility to consolidate with a portion of APS' proposed 230-kV transmission project. See Response #6, Local Benefit, and Response #10, Connection to Other Plans, for additional information.

Summary of Comment 39.1: How was the public informed about this proposal? Were property owners adjacent to the transmission line route notified via mail? Public outreach for a project of this magnitude should entail massive notification to any and all private property owners adjacent to and along the route of the proposed/alternative transmission line route.

Response: Western held stakeholder meetings with 16 groups in February 2006; Table 1.3-1, Stakeholder Meetings, lists the dates, locations, and attendees of these meetings. Four public scoping meetings were hosted by Western during the public scoping process; Table 1.3-2, Public Scoping Meetings, lists the meeting locations, dates, times, and attendance. Notice of scoping meetings was announced using various methods including publication in the Federal Register, three advertisement announcements in the Yuma Sun, two advertisement announcements in the Bajo El Sol, and a local NOI mailer that was sent in English and Spanish to a distribution list, which included over 1,150 government officials, agencies, tribes, organizations, and potentially affected landowners. All potentially affected landowners within 1 mile of the proposed alternatives were identified from property ownership records and were contacted by direct mailings. Notice of availability of the Draft EIS and of public hearings for the Draft EIS was announced by two advertisement announcements in the Yuma Sun, one advertisement announcement in the Bajo El Sol, and a local mailer sent to the distribution list. Copies of newspaper announcements and the local notice mailings for scoping meetings and the public hearings are included in Appendix C.

Summary of Comments 44.1, 45.2, 46.1, and 47.1: Concerns regarding running a power line through the Kofa National Wildlife Refuge.

Response: The Proposed Project would not cross the Kofa National Wildlife Refuge. The Kofa National Wildlife Refuge is located more than 20 miles northeast of the Proposed Project.

Summary of Comment 54.1: Western fails to provide details in this Draft EIS about the Applicants' histories in the industry and doing business in the United States.

Response: Western's purpose and need for agency action is to make a determination regarding the interconnection request at Gila Substation, and DOE OE's purpose is to consider the request for a Presidential permit, based on the system and environmental impacts that would result from the Proposed Project, and reliability considerations with respect to the United States electric transmission grid. Western and DOE OE are not utility regulators. Information on the Applicants' background and history is not relevant to these determinations and, therefore, is not discussed.

Summary of Comment 54.3: The Applicants' have not filed the Proposed Project with the ACC.

Response: The interconnection to a Western substation, need for a Presidential permit, and involvement of federally-managed public lands triggered a Federal NEPA process. Because the Proposed Project requires Federal actions and decisions, the Proposed Project is not required to file with the ACC.

Summary of Comment 54.4: The Draft EIS states that Western would own the Proposed Project components within the United States, which would make Western a co-applicant. The Draft EIS fails to explain what laws allow an applicant to write an EIS.

Response: The Applicants are not preparing the EIS – Western and DOE are. In order to make an informed decision, Federal agencies prepare an EIS to describe the environmental impacts that would result from a proposed action. The Applicants proposed the project and submitted requests to Western and DOE OE that require Federal decisions. In response, Western and DOE OE in coordination with the other cooperating agencies prepared the Draft EIS to solicit public comment on the Proposed Project, identify reasonable alternatives, and analyze the potential environmental impacts of the Proposed Action and alternatives. If the Proposed Project receives all necessary approvals, including the interconnection agreement, then Western would be owner of the resulting facilities within the United States, as identified as part of the project proposal presented by the Applicants.

Summary of Comment 54.5: The Department of Homeland Security is not included in the purpose and need for agency action. This EIS lacks the ability to ensure United States security and DOE and Western cannot provide and guarantee United States security.

Response: The Department of Homeland Security does not have a Federal action resulting from the Proposed Project, and does not have a purpose and need to address. Therefore, the Department is not involved as a cooperating agency. Western has, however, been coordinating the Proposed Project with the Department of Homeland Security through the U.S. Border Patrol, and has addressed Border Patrol input. DOE's consideration of the Proposed Project is not, in and of itself, considered an element of United States security. As described in Draft EIS Section 1.2.2, OE Presidential Permit, DOE OE (Office of Electricity Delivery and Energy Reliability) is responsible for the Federal decision regarding construction, connection, operation, and maintenance of the proposed transmission line at the United States-Mexico international border in response to the Applicants' request for a Presidential permit. A Presidential permit may be issued only after the finding that the Proposed Project is consistent with the public interest, and after concurrence by the U.S. Department of Defense and the U.S. Department of State.

Summary of Comment 54.9: Other than “Landowners” who attended the stakeholder meeting at Booth’s Machinery, how many individuals of the general public participated in presentations on the Proposed Project? Where are copies of the newspaper announcements and NOIs in the Draft EIS?

Response: Western held stakeholder meetings with 16 groups in February 2006; Table 1.3-1, Stakeholder Meetings, in the Draft EIS lists the dates, locations, and attendees of these meetings. Four public scoping meetings were hosted by Western during the public scoping process; Table 1.3-2, Public Scoping Meetings, in the Draft EIS lists the meeting locations, dates, times, and attendance (total attendance was 37 individuals). Notice of scoping meetings was announced using various methods including publication in the Federal Register, three advertisement announcements in the Yuma Sun, two advertisement announcements in the Bajo El Sol, and a local NOI mailer that was sent in English and Spanish to a distribution list, which included over 1,150 government officials, agencies, tribes, organizations, and potentially affected landowners within 1 mile of the proposed alternatives. Notice of public hearings for the Draft EIS was announced by two advertisement announcements in the Yuma Sun, one advertisement announcement in the Bajo El Sol, and a local mailer sent to the distribution list. The local scoping notice mailer and scoping update mailer were included in the Draft EIS, Appendix D, Scoping Meeting Materials, as well as the Notice of Intent (NOI) published in the *Federal Register*. Copies of newspaper announcements and the local notice mailings for scoping meetings and the public hearings are included in Appendix C.

Summary of Comment 54.10: Table S.2 lists scoping comment summaries, but does not list who provided the comment or how. The “Treatment” column of the table provides reference numbers to sections and chapters, how does Western expect the public to comment on numbers?

Response: Scoping comments and Draft EIS comments are part of the Administrative Record for the EIS process. Western received two written comments during the scoping period; the other comments in the table were summarized from verbal comments provided at scoping and stakeholder meetings. The goal of the Summary portion of the Draft EIS – 28 pages in this instance – is to present a brief overview of the purpose and need, public involvement, alternatives, and impacts identified in the full text of the EIS document. The reference numbers to sections and chapters is intended to direct the reader to the appropriate section for a comprehensive analysis of the topic of interest. The full text of the Draft EIS is over 300 pages worth of background information and analysis of the Proposed Action and alternatives. All comments received on the Draft EIS are included in Appendix A of this document.

Summary of Comment 54.13: Section S.5 Impacts does not address all the alternatives noted in S.4.

Response: Table S-3 Summary Comparison of Environmental Impacts, included in Section S.5, Impacts, is the summary of environmental impacts for each of the alternatives identified in Section S.4, Alternatives, including the Applicants’ Proposed Action, Route Alternative, 230-kV Alternative, and No Action Alternative.

REFERENCES

- ACC 2007 Arizona Corporation Commission (ACC) 2007. Fourth Biennial Transmission Assessment 2006-2015. Docket No. E-00000D-05-0040. January 30, 2007. [Web Page]. Located at http://www.cc.state.az.us/utility/electric/BTA%202006%20Final%20Report%20_07-Jan-30_.pdf. Accessed February 22, 2007.
- ADOT 2004 Arizona Department of Transportation (ADOT) 2004. SR 195, Goldwater Range – Phase A, 60% Stage III Submittal (Preliminary 60% Review Design Drawings). STP-900-A(55), TRACS No. H5774 05C. June 18, 2004.
- APLIC and USFWS 2005 Avian Power Line Interaction Committee (APLIC) and United States Fish and Wildlife Service (USFWS) 2005. Avian Protection Plan (APP) Guidelines. April.
- BLM 2007 U.S. Bureau of Land Management (BLM) 2007. Yuma Field Office Draft Resource Management Plan and Draft Environmental Impact Statement. December 2006. [Web Page]. Located at: http://www.blm.gov/az/LUP/yuma/yuma_plan.htm. Accessed January 24, 2007.
- Bowles 2006 Jennifer Bowles 2006. The Press-Enterprise, *Transmission Tower Felled by Wind*. July 7, 2006. [Web Page]. Located at: http://www.pe.com/localnews/inland/stories/PE_News_Local_D_tower07.1fe3403.html. Accessed March 12, 2007.
- Department of Homeland Security 2007 Department of Homeland Security 2007. Federal Register, Volume 72, no. 12, pages 2535-2536, January 19, 2007, Department of Homeland Security. [Web Page]. Located at <http://a257.g.akamaitech.net/7/257/2422/01jan20071800/edocket.access.gpo.gov/2007/pdf/E7-738.pdf>. Accessed February 28, 2007.
- EPRI 1982 Electric Power Research Institute (EPRI) 1982. Transmission Line Reference Book: 345 kV and Above, Second Edition, Revised. Section 2.7 Extra High Voltage Tower Geometries and Line Characteristics. Palo Alto, CA.
- Kroll and EEI 2003 Cynthia A. Kroll and Edison Electric Institute (EEI) Internet Edition copyrighted in 2003, original copyright EEI 1992. The Effects of Overhead Transmission Lines on Property Values, A Review and Analysis of the Literature. [Web Page]. Located at <http://staff.haas.berkeley.edu/kroll/pubs/tranline.pdf>. Accessed February 22, 2007.
- PDC 2007 Power Deliver Consultants, Inc (PDC) 2007. Budgetary Cost Estimates for Proposed San Luis Rio Colorado Project 230 kV Underground Transmission Technologies. March 8, 2007.

- Peterson 2006 Personal communication with Chris Peterson, Director, Government Affairs, Union Pacific Railroad. August 18, 2006.
- PG&E 2005 Pacific Gas and Electric Company (PG&E) 2005. Delta Distribution Planning Area Capacity Increase Substation Project, Proponent's Environmental Assessment, Chapter 16 Induced Currents and Corona Effect. August 2005. [Web Page]. Located at: http://www.cpuc.ca.gov/Environment/info/aspen/deltasub/pea/16_corona_and_induced_currents.pdf. Accessed February 22, 2007.
- Reclamation 2000 U.S. Bureau of Reclamation (Reclamation) 2000. San Luis, Arizona Commercial Port of Entry Project Environmental Assessment. September. [Web Page]. Located at: <http://www.gypa.org/EnviroAssess.pdf>. Accessed: June 24, 2006.
- Wisconsin 2004 Wisconsin 2004. State of Wisconsin Public Service Commission. Environmental Impacts of Transmission Lines, July 2004. [Web Page]. Located at: <http://psc.wi.gov/thelibrary/publications/electric/electric10.pdf>. Accessed February 22, 2007.
- Yuma Sun 2006d Yuma Sun 2006d. Proposed Mexican power plant would skirt range. Published February 27, 2006. [Web Page] Located at <http://sun.yumasun.com/google/ysarchive19266.html>. Accessed April 11, 2006.
- Yuma Sun 2006e Yuma Sun 2006e. MCAS 'very concerned' about proposed power lines. Published February 28, 2006. [Web Page] Located at <http://sun.yumasun.com/google/ysarchive19297.html>. Accessed April 11, 2006.
- Yuma Sun 2006f Yuma Sun 2006f. Letters to the editor, Power towers and more letters. Published March 17, 2006. [Web Page] Located at <http://sun.yumasun.com/google/ysarchive19644.html>. Accessed April 11, 2006.
- Yuma Sun 2006g Yuma Sun 2006g. Proposed power line subject of public meeting. Published December 3, 2006. [Web page] Located at: http://sun.yumasun.com/artman/publish/articles/story_28442.php. Accessed December 4, 2006.
- Yuma Sun 2006h Yuma Sun 2006h. Planned power line may have impact on base. Published December 4, 2006. [Web Page] Located at: <http://sun.yumasun.com/google/ysarchive25124.html>. Accessed December 5, 2006.
- Yuma Sun 2006i Yuma Sun 2006i. Letters to the editor, Put high voltage line underground. Published December 25, 2006. [Web Page] Located at: <http://sun.yumasun.com/google/ysarchive25570.html>. Accessed December 27, 2006.

Yuma Sun 2007

Yuma Sun 2007. Today's Union Pacific Meeting to be Broadcast Live. Published March 14, 2007. [Web Page]. Located at:
<http://www.yumasun.com/onset?id=32633&template=article.html>.
Accessed March 15, 2007.

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APPENDIX A

DRAFT EIS COMMENT COMPILATION PACKAGE

Comment and Response Correlation

Appendix A contains the San Luis Rio Colorado Project Draft Environmental Impact Statement (Draft EIS) comment and response tracking table, as well as a copy of the comments received on the Draft EIS. The comment and response tracking table is presented first to make responses to specific comments easier to find. Columns within the table include: comment reference number, commenter, comment type, response number, and response treatment. A description of each column is presented as follows.

Comment reference number (Ref #): Each comment document was assigned a reference number. Then, the individual comments within the document were assigned a secondary reference number. For example, the comment document received from the U.S. Environmental Protection Agency (EPA) was assigned as “Comment Reference Document 4” and five comments were identified within this document; therefore, the comment reference numbers for those comments are 4.1, 4.2, 4.3, 4.4, and 4.5.

Commenter: Name of organization or individual who provided comment.

Comment type: Comments were separated into 22 topics; the individual comment topic is listed in this column.

Response number (Response #): Correlates to the response number, within the response document, that addresses the comment.

Response/treatment: Many comments were received regarding similar topics; all comments on a similar topic were addressed in a comprehensive response based on that topic. Comments that did not fit with one of the 21 specific topics were responded to individually in Response 22. Comments that were noted in preparation of the Final EIS and included in the Administrative Record were identified as “Noted” in the table and listed as such in Response 22.

Following the table is a compilation of the comments received as of January 29, 2007, on the Draft EIS. The comment documents are grouped by Federal agency, State of Arizona agency, organization, and public. Within the Federal agency, State of Arizona agency, and organization sections, the comment documents are listed in alphabetical order by agency or organization name. Within the public section, the transcripts from the public hearings are listed first, followed by comments received via fax, mail, or email listed in alphabetical order by last name of the commenter. To protect the privacy of individuals, contact information has been obscured on comments received from the public. As identified above, each comment document (or public hearing commenter) was assigned a reference number. Then, the individual comments were assigned a secondary reference number. The comment reference numbers are identified in the comment reference documents in the comment summary, comment and response tracking table, and response document. Comments received after the comment summary package was put together are included at the end of the appendix.

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
1.1	DOI,BIA	Cultural	13	Comprehensive Response
1.2	DOI,BIA	Agriculture	8	Comprehensive Response
1.3	DOI,BIA	Cultural	13	Comprehensive Response
1.4	DOI,BIA	Cultural	13	Comprehensive Response
1.5	DOI,BIA	Cultural	13	Comprehensive Response
1.6	DOI,BIA	Other	22	Individual Response
1.7	DOI,BIA	Other	22	Individual Response
1.8	DOI,BOR	Other	22	Noted
1.9	DOI,BOR	Alignment	19	Comprehensive Response
1.10	DOI,BOR	FTHL	4	Comprehensive Response
1.11	DOI,BOR	Contact Info	20	Comprehensive Response
1.12	DOI,BLM	Cultural	13	Comprehensive Response
1.13	DOI,BLM	Other	22	Individual Response
1.14	DOI,BLM	Corrections	21	Individual Response
1.15	DOI,BLM	FTHL	4	Comprehensive Response
1.16	DOI,BLM	Other	22	Noted
1.17	DOI,BLM	FTHL	4	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
1.18	DOI,BLM	Other	22	Individual Response
1.19	DOI,BLM	Cumulative	7	Comprehensive Response
2.1	BOR	Other	22	Noted
2.2	BOR	Alignment	19	Comprehensive Response
2.3	BOR	FTHL	4	Comprehensive Response
2.4	BOR	Contact Info	20	Comprehensive Response
3.1	BOR	Cultural	13	Comprehensive Response
3.2	BOR	Contact Info	20	Comprehensive Response
4.1	EPA	Other	22	Individual Response
4.2	EPA	Plant in Mexico	9	Noted
4.3	EPA	Plant in Mexico	9	Noted
4.4	EPA	Plant in Mexico, Other	9, 22	Noted
4.5	EPA	Contact Info	20	Comprehensive Response
5.1	USIBWC	International Boundary	17	Comprehensive Response
5.2	USIBWC	International Boundary	17	Comprehensive Response
5.3	USIBWC	International Boundary	17	Comprehensive Response

NOTE: ADEQ = Arizona Department of Environmental Quality; ADOT = Arizona Department of Transportation; AGFD = Arizona Game and Fish Department; BIA = U.S. Bureau of Indian Affairs; BLM = U.S. Bureau of Land Management; BMGR = Barry M. Goldwater Range; BOR = U.S. Bureau of Reclamation; DOI = U.S. Department of the Interior; EMF = Electric and Magnetic Fields; EPA = U.S. Environmental Protection Agency; FTHL = Flat-tailed Horned Lizard; MCAS = Marine Corps Air Station Yuma; NGVID = North Gila Valley Irrigation District; SCERP = Southwest Consortium for Environmental Research and Policy; SHPO = State Historic Preservation Office; USIBWC = United States Section of the International Boundary and Water Commission; YMIDD = Yuma Mesa Irrigation and Drainage District; YID = Yuma Irrigation District

**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
5.4	USIBWC	International Boundary	17	Comprehensive Response
5.5	USIBWC	International Boundary	17	Comprehensive Response
5.6	USIBWC	International Boundary, Water	17, 18	Comprehensive Response
5.7	USIBWC	International Boundary	17	Comprehensive Response
5.8	USIBWC	International Boundary	17	Comprehensive Response
5.9	USIBWC	International Boundary	17	Comprehensive Response
5.10	USIBWC	Contact Info	20	Comprehensive Response
5.11	USIBWC	Other	22	Noted
5.12	USIBWC	International Boundary	17	Comprehensive Response
5.13	USIBWC	International Boundary	17	Comprehensive Response
5.14	USIBWC	International Boundary	17	Comprehensive Response
5.15.1 to 5.15.9	USIBWC	Corrections	21	Individual Responses
6.1	MCAS	Aviation Safety	2	Comprehensive Response
6.2	MCAS	MCAS, Alignment	3, 19	Comprehensive Response
6.3	MCAS	MCAS, Alignment	3, 19	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
6.4	MCAS	Aviation Safety	2	Comprehensive Response
6.5	MCAS	Alignment	19	Comprehensive Response
6.6	MCAS	Alignment	19	Comprehensive Response
6.7	MCAS	Alignment	19	Comprehensive Response
6.8	MCAS	Aviation Safety	2	Comprehensive Response
6.9	MCAS	Other	22	Noted
6.10	MCAS	BMGR, Other	3, 22	Comprehensive Response, Noted
6.11	MCAS	Other	22	Noted
6.12	MCAS	BMGR	3	Comprehensive Response
6.13	MCAS	Connection to other Projects, Local Benefit	6, 10	Comprehensive Response
6.14	MCAS	BMGR	3	Comprehensive Response
6.15	MCAS	Contact Info	20	Comprehensive Response
7.1	MCAS	Other	22	Noted
7.2	MCAS	MCAS, Alignment	3, 19	Comprehensive Response
7.3	MCAS	MCAS, Alignment	3, 19	Comprehensive Response
7.4	MCAS	Aviation Safety	2	Comprehensive Response

NOTE: ADEQ = Arizona Department of Environmental Quality; ADOT = Arizona Department of Transportation; AGFD = Arizona Game and Fish Department; BIA = U.S. Bureau of Indian Affairs; BLM = U.S. Bureau of Land Management; BMGR = Barry M. Goldwater Range; BOR = U.S. Bureau of Reclamation; DOI = U.S. Department of the Interior; EMF = Electric and Magnetic Fields; EPA = U.S. Environmental Protection Agency; FTHL = Flat-tailed Horned Lizard; MCAS = Marine Corps Air Station Yuma; NGVID = North Gila Valley Irrigation District; SCERP = Southwest Consortium for Environmental Research and Policy; SHPO = State Historic Preservation Office; USIBWC = United States Section of the International Boundary and Water Commission; YMIDD = Yuma Mesa Irrigation and Drainage District; YID = Yuma Irrigation District

**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
7.5	MCAS	Aviation Safety, MCAS	2, 3	Comprehensive Response
7.6	MCAS	Underground	1	Comprehensive Response
7.7	MCAS	Connection to other Projects, Local Benefit	6, 10	Comprehensive Response
7.8	MCAS	FTHL	4	Comprehensive Response
7.9	MCAS	BMGR	3	Comprehensive Response
7.10	MCAS	Contact Info	20	Comprehensive Response
7.11	MCAS	Aviation Safety	2	Comprehensive Response
7.12	MCAS	Underground, MCAS, Alignment	1, 3, 19	Comprehensive Response
7.13	MCAS	Aviation Safety	2	Comprehensive Response
7.14	MCAS	Aviation Safety	2	Noted
7.15.1	MCAS	Local Benefit, Connection to other Projects	6, 10	Comprehensive Response
7.15.2	MCAS	Corrections	21	Individual Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
7.15.3	MCAS	Local Benefit, Connection to other Projects	6, 10	Comprehensive Response
7.15.4	MCAS	Corrections	21	Individual Response
7.15.5	MCAS	Aviation Safety, Underground Option	1, 2	Comprehensive Response
7.15.6	MCAS	BMGR	3	Comprehensive Response
7.15.7	MCAS	Alignment	19	Comprehensive Response
7.15.8	MCAS	MCAS, Alignment	3, 19	Comprehensive Response
7.15.9	MCAS	Other	22	Noted
7.15.10	MCAS	BMGR, Other	3, 22	Comprehensive Response, Noted
7.15.11	MCAS	Other	22	Noted
7.15.12	MCAS	BMGR	3	Comprehensive Response
7.15.13	MCAS	Biology	14	Comprehensive Response
7.15.14	MCAS	Biology	14	Comprehensive Response
7.15.15	MCAS	Biology, Other	14, 22	Comprehensive Response, Noted
7.15.16	MCAS	Water Regulations	18	Comprehensive Response

NOTE: ADEQ = Arizona Department of Environmental Quality; ADOT = Arizona Department of Transportation; AGFD = Arizona Game and Fish Department; BIA = U.S. Bureau of Indian Affairs; BLM = U.S. Bureau of Land Management; BMGR = Barry M. Goldwater Range; BOR = U.S. Bureau of Reclamation; DOI = U.S. Department of the Interior; EMF = Electric and Magnetic Fields; EPA = U.S. Environmental Protection Agency; FTHL = Flat-tailed Horned Lizard; MCAS = Marine Corps Air Station Yuma; NGVID = North Gila Valley Irrigation District; SCERP = Southwest Consortium for Environmental Research and Policy; SHPO = State Historic Preservation Office; USIBWC = United States Section of the International Boundary and Water Commission; YMIDD = Yuma Mesa Irrigation and Drainage District; YID = Yuma Irrigation District

**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
7.15.17	MCAS	Biology	14	Comprehensive Response
7.15.18	MCAS	Biology	14	Comprehensive Response
7.15.19	MCAS	FTHL	4	Comprehensive Response
7.15.20	MCAS	Other	22	Noted
7.15.21	MCAS	FTHL	4	Comprehensive Response
7.15.22	MCAS	FTHL	4	Comprehensive Response
7.15.23	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.24	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.25	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.26	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.27	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.28	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.29	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.30	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.31	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted
7.15.32	MCAS	Aviation Safety	2, 22	Comprehensive Response, Noted

Ref #	Commenter	Comment Type	Response #	Response/Treatment
7.15.33	MCAS	Connection to other Projects	10	Comprehensive Response
7.15.34	MCAS	Connection to other Projects	10	Comprehensive Response
7.15.35	MCAS	Connection to other Projects	10	Comprehensive Response
7.15.36	MCAS	Connection to other Projects	10	Comprehensive Response
7.15.37	MCAS	Cumulative Impacts	7	Comprehensive Response
7.15.38	MCAS	Corrections	21	Individual Response
7.15.39	MCAS	Corrections	21	Individual Response
8.1	ADEQ, air	Air	11	Comprehensive Response
8.2	ADEQ, air	Air	11	Comprehensive Response
8.3	ADEQ, air	Air	11	Comprehensive Response
8.4	ADEQ, air	Air	11	Comprehensive Response
8.5	ADEQ, air	Air	11	Comprehensive Response
8.6	ADEQ, air	Air	11	Comprehensive Response
8.7	ADEQ, air	Contact Info	21	Comprehensive Response

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
9.1	ADEQ, water	Water	18	Comprehensive Response
9.2	ADEQ, water	Water	18	Comprehensive Response
9.3	ADEQ, water	Water	18	Comprehensive Response
9.4	ADEQ, water	Water	18	Comprehensive Response
9.5	ADEQ, water	Water	18	Comprehensive Response
9.6	ADEQ, water	Water	18	Comprehensive Response
9.7	ADEQ, water	Contact Info	21	Comprehensive Response
9.8	ADEQ, water	Water	18	Comprehensive Response
9.9	ADEQ, water	Contact Info	21	Comprehensive Response
9.10	ADEQ, water	Water	18	Comprehensive Response
9.11	ADEQ, water	Water	18	Comprehensive Response
9.12	ADEQ, water	Contact Info	21	Comprehensive Response
9.13	ADEQ, water	Water	18	Comprehensive Response
9.14	ADEQ, water	Contact Info	21	Comprehensive Response
10.1	ADOT	Other	22	Individual Response
10.2	ADOT	Other	22	Individual Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
10.3	ADOT	Contact Info	21	Comprehensive Response
11.1	AGFD	FTHL	4	Noted
11.2	AGFD	Water	18	Comprehensive Response
11.3	AGFD	Contact Info	21	Comprehensive Response
12.1	SHPO	Cultural	13	Comprehensive Response
12.2	SHPO	Cultural, Other	13, 22	Comprehensive Response, Noted
12.3	SHPO	Contact Info	21	Comprehensive Response
13.1	Associated Citrus Packers	Property Value, Aviation Safety, Alignment	2, 12, 19	Comprehensive Response
13.2	Associated Citrus Packers	Alignment	19	Comprehensive Response
14.1	Cocopah	Cultural	13	Noted
14.2	Cocopah	Cultural	13	Comprehensive Response
14.3	Cocopah	Cultural	13	Comprehensive Response
14.4	Cocopah	Contact Info	21	Comprehensive Response
15.1	Maricopa Audubon Society	Air	11	Comprehensive Response

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
15.2	Maricopa Audubon Society	Local Benefit	6	Comprehensive Response
15.3	Maricopa Audubon Society	Plant in Mexico	9	Comprehensive Response
15.4	Maricopa Audubon Society	FTHL	4	Comprehensive Response
15.5	Maricopa Audubon Society	FTHL	4	Comprehensive Response
15.6	Maricopa Audubon Society	Cumulative	7	Comprehensive Response
15.7	Maricopa Audubon Society	Cumulative	7	Comprehensive Response
15.8	Maricopa Audubon Society	FTHL	4	Comprehensive Response
15.9	Maricopa Audubon Society	Other	22	Noted
16.1	NGVID	Agriculture	8	Comprehensive Response
16.1.1	NGVID	Alignment	19	Comprehensive Response
16.1.2	NGVID	Alignment	19	Comprehensive Response
16.1.3	NGVID	Agriculture	8	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
16.1.4	NGVID	Agriculture	8	Comprehensive Response
16.1.5	NGVID	Other	22	Noted
16.2	NGVID	Plant in Mexico	9	Comprehensive Response
16.2.1	NGVID	Alignment	19	Comprehensive Response
16.2.2	NGVID	Plant in Mexico	9	Comprehensive Response
16.3	NGVID	Local Benefit	6	Comprehensive Response
16.3.1	NGVID	Local Benefit, Alignment	6, 19	Comprehensive Response
16.3.2	NGVID	Local Benefit	6	Comprehensive Response
16.3.3	NGVID	Local Benefit	6	Comprehensive Response
16.3.4	NGVID	Alignment	19	Comprehensive Response
16.4	NGVID	Local Benefit	6	Comprehensive Response
17.1	Quechan	Cultural	13	Comprehensive Response
17.2	Quechan	Cultural	13	Comprehensive Response
17.3	Quechan	Cultural	13	Comprehensive Response
17.4	Quechan	Cultural	13	Comprehensive Response
17.5	Quechan	Contact Info	21	Comprehensive Response

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
18.1	Sierra Club	Other	22	Individual Response
18.2	Sierra Club	Cumulative Impacts	7	Comprehensive Response
18.3	Sierra Club	FTHL	4	Comprehensive Response
18.4	Sierra Club	Other	22	Noted
18.5	Sierra Club	Other	22	Individual Response
19.1	SCERP	Plant in Mexico	9	Comprehensive Response
20.1	Woodman Citrus	Property Value, Aviation Safety, Alignment	2, 12, 19	Comprehensive Response
20.2	Woodman Citrus	Alignment	19	Comprehensive Response
21.1	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.2	Yuma Audubon Society	Biology	14	Comprehensive Response
21.3	Yuma Audubon Society	Biology	14	Comprehensive Response
21.4	Yuma Audubon Society	Biology	14	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
21.5	Yuma Audubon Society	Biology	14	Comprehensive Response
21.6	Yuma Audubon Society	Biology	14	Comprehensive Response
21.7	Yuma Audubon Society	Biology	14	Comprehensive Response
21.8	Yuma Audubon Society	Biology	14	Comprehensive Response
21.9	Yuma Audubon Society	Biology	14	Comprehensive Response
21.10	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.11	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.12	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.13	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.14	Yuma Audubon Society	FTHL	4	Comprehensive Response

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
21.15	Yuma Audubon Society	FTHL, Cumulative Impacts	4, 7	Comprehensive Response
21.16	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.17	Yuma Audubon Society	FTHL	4	Comprehensive Response
21.18	Yuma Audubon Society	Air, Cumulative Impacts	7, 11	Comprehensive Response
21.19	Yuma Audubon Society	Air	11	Comprehensive Response
21.20	Yuma Audubon Society	Plant in Mexico	9	Comprehensive Response
21.21	Yuma Audubon Society	Visual	5	Comprehensive Response
21.22	Yuma Audubon Society	Visual	5	Comprehensive Response
21.23	Yuma Audubon Society	Visual	5	Comprehensive Response
21.24	Yuma Audubon Society	Visual	5	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
21.25	Yuma Audubon Society	Visual	5	Comprehensive Response
21.26	Yuma Audubon Society	Cultural	13	Comprehensive Response
21.27	Yuma Audubon Society	Interference	16	Comprehensive Response
21.28	Yuma Audubon Society	Other	22	Individual Response
21.29	Yuma Audubon Society	Connection to other Projects, Local Benefit	6, 10	Comprehensive Response
21.30	Yuma Audubon Society	Other	22	Individual Response
21.31	Yuma Audubon Society	Other	22	Noted
21.32	Yuma Audubon Society	Other	22	Noted
21.33	Yuma Audubon Society	Corrections	21	Individual Response
21.34	Yuma Audubon Society	Corrections	21	Individual Response

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Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
21.35	Yuma Audubon Society	Other	22	Noted
22.1	YMIDD	Alignment	19	Comprehensive Response
22.2	YMIDD	Alignment	19	Comprehensive Response
22.3	YMIDD	Alignment	19	Comprehensive Response
22.4	YMIDD	Alignment	19	Comprehensive Response
22.5	YMIDD	Alignment	19	Comprehensive Response
22.6	YMIDD	Other	22	Noted
23.1	YID	Plant in Mexico	9	Comprehensive Response
23.1.1	YID	Alignment	19	Comprehensive Response
23.1.2	YID	Plant in Mexico	9	Comprehensive Response
23.1.3	YID	Connection to other Projects, Local Benefit	6, 10	Comprehensive Response
23.2	YID	Local Benefit	6	Comprehensive Response
23.2.1	YID	Local Benefit, Alignment	6, 19	Comprehensive Response
23.2.2	YID	Local Benefit	6	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
23.2.3	YID	Local Benefit	6	Comprehensive Response
23.3	YID	Agriculture	8	Comprehensive Response
23.3.1	YID	Agriculture	8	Comprehensive Response
23.3.2	YID	Agriculture	8	Comprehensive Response
23.3.3	YID	Other	22	Noted
24.1	Jim Babb	Other	22	Individual Response
24.2	Jim Babb	EMF, Health and Safety	15	Comprehensive Response
24.3	Jim Babb	Alignment	19	Comprehensive Response
24.4	Jim Babb	Other	22	Noted
24.5.1	Jim Babb	FTHL	4	Comprehensive Response
24.5.2	Jim Babb	BMGR	3	Comprehensive Response
24.5.3	Jim Babb	Agriculture	8	Comprehensive Response
24.6	Jim Babb	Local Benefit, Other	6, 22	Comprehensive Response , Individual Response
24.7	Jim Babb	Local Benefit, Other	6, 22	Comprehensive Response , Individual Response

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Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
24.8	Jim Babb	Local Benefit, Alignment	6, 19	Comprehensive Response
24.9	Jim Babb	Connection to other Projects	10	Comprehensive Response
24.10	Jim Babb	Alignment	19	Comprehensive Response
25.1	Max Bardo	Alignment	19	Comprehensive Response
25.2	Max Bardo	Agriculture	8	Comprehensive Response
25.3	Max Bardo	Aviation Safety, Agriculture	2, 8	Comprehensive Response
25.4	Max Bardo	Agriculture	8	Comprehensive Response
25.5	Max Bardo	Aviation Safety	2	Comprehensive Response
25.6	Max Bardo	Visual	5	Comprehensive Response
26.1	Sherman Grubb	Aviation Safety	2	Comprehensive Response
27.1	Paul Kochis	Alignment	19	Comprehensive Response
27.2	Paul Kochis	FTHL	4	Comprehensive Response
27.3	Paul Kochis	Aviation Safety	2	Comprehensive Response
28.1	Betty Mason	Agriculture	8	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
28.2	Betty Mason	Aviation Safety	2	Comprehensive Response
28.3	Betty Mason	FTHL	4	Comprehensive Response
29.1	Charles Saltzer	Alignment	19	Comprehensive Response
29.2	Charles Saltzer	Local Benefit, Plant in Mexico	6, 9	Comprehensive Response
29.3	Charles Saltzer	Air	11	Comprehensive Response
29.4	Charles Saltzer	Local Benefit	6	Comprehensive Response
29.5	Charles Saltzer	Alignment	19	Comprehensive Response
29.6	Charles Saltzer	BMGR	3	Comprehensive Response
29.7	Charles Saltzer	Aviation Safety	2	Comprehensive Response
29.8	Charles Saltzer	Aviation Safety, Agriculture	2, 8	Comprehensive Response
29.9	Charles Saltzer	Plant in Mexico, Local Benefit	6, 9	Comprehensive Response
30.1	Betty Oppenheimer	Alignment	19	Comprehensive Response
30.2	Betty Oppenheimer	EMF	15	Comprehensive Response
30.3	Betty Oppenheimer	Other, Property Values	12, 22	Comprehensive Response, Noted

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
30.4	Betty Oppenheimer	Interference	16	Comprehensive Response
30.5	Betty Oppenheimer	EMF	15	Comprehensive Response
30.6	Betty Oppenheimer	Interference	16	Comprehensive Response
30.7	Betty Oppenheimer	EMF	15	Comprehensive Response
30.8	Betty Oppenheimer	EMF	15	Comprehensive Response
30.9	Betty Oppenheimer	Interference	16	Comprehensive Response
30.10	Betty Oppenheimer	Plant in Mexico, Local Benefit	6, 9	Comprehensive Response
31.1	Sam Oppenheimer	Other	22	Noted
31.2	Sam Oppenheimer	BMGR	3	Comprehensive Response
31.3	Sam Oppenheimer	Local Benefit, Alignment	6, 19	Comprehensive Response
32.1	Paul Rachels	Aviation Safety	2	Comprehensive Response
32.2	Paul Rachels	Local Benefit, Alignment	6, 19	Comprehensive Response
33.1	Cary Meister	Plant in Mexico	9	Comprehensive Response
33.2	Cary Meister	Plant in Mexico	9	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
33.3	Cary Meister	Air	11	Comprehensive Response
33.4	Cary Meister	FTHL	4	Comprehensive Response
33.5	Cary Meister	FTHL	4	Comprehensive Response
33.6	Cary Meister	FTHL	4	Comprehensive Response
33.7	Cary Meister	Cumulative Impacts	7	Comprehensive Response
33.8	Cary Meister	FTHL	4	Comprehensive Response
33.9	Cary Meister	FTHL	4	Comprehensive Response
33.10	Cary Meister	Alignment	19	Comprehensive Response
33.11	Cary Meister	BMGR, Cumulative Impacts	3, 7	Comprehensive Response
34.1	James Brown	Aviation Safety	2	Comprehensive Response
35.1	Bonnie Chandler	Other	22	Noted
35.2	Bonnie Chandler	Underground	1	Comprehensive Response
35.3	Bonnie Chandler	Underground	1	Comprehensive Response
35.4	Bonnie Chandler	Property Value	12	Comprehensive Response
35.5	Bonnie Chandler	Visual	5	Comprehensive Response

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
35.6	Bonnie Chandler	Other	22	Noted
35.7	Bonnie Chandler	Local Benefit, Other	6, 22	Comprehensive Response, Noted
36.1	James Brown	Aviation Safety	2	Comprehensive Response
37.1	Terence Chandler	Other	22	Noted
37.2	Terence Chandler	Underground	1	Comprehensive Response
37.3	Terence Chandler	Underground	1	Comprehensive Response
37.4	Terence Chandler	Property Value	12	Comprehensive Response
37.5	Terence Chandler	Visual	5	Comprehensive Response
37.6	Terence Chandler	Other	22	Noted
37.7	Terence Chandler	Local Benefit, Other	6, 22	Comprehensive Response, Noted
38.1	Wade Noble	Alignment	19	Comprehensive Response
39.1	Juan Rubio	Other	22	Individual Response
39.2	Juan Rubio	Alignment	19	Individual Response
40.1	James Brown	Aviation Safety	2	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
40.2	James Brown	Aviation Safety	2	Comprehensive Response
40.3	James Brown	Underground	1	Comprehensive Response
41.1	John Colvin	Local Benefit, Plant in Mexico	6, 9	Comprehensive Response
41.2	John Colvin	Local Benefit, Plant in Mexico	6, 9	Comprehensive Response
41.3	John Colvin	Plant in Mexico	9	Comprehensive Response
42.1	William and Clara Eades	EMF	15	Comprehensive Response
42.2	William and Clara Eades	Property Value	12	Comprehensive Response
42.3	William and Clara Eades	Underground , EMF	1, 15	Comprehensive Response
43.1	William and Clara Eades	Property Value	12	Comprehensive Response
43.2	William and Clara Eades	EMF	15	Comprehensive Response
44.1	Brandon Easterday	Other	22	Comprehensive Response, Propose Project is not near Kofa NWR
44.2	Brandon Easterday	Local Benefit	6	Comprehensive Response
44.3	Brandon Easterday	Local Benefit, Plant in Mexico	6, 9	Comprehensive Response

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**San Luis Rio Colorado Project Draft Environmental Impact Statement
Comment and Response Tracking Table**

Ref #	Commenter	Comment Type	Response #	Response/Treatment
44.4	Brandon Easterday	Other	22	Noted
45.1	Donna Easterday	Local Benefit	6	Comprehensive Response
45.2	Donna Easterday	Visual, Other	5, 22	Comprehensive Response, Propose Project is not near Kofa NWR
45.3	Donna Easterday	Air	11	Comprehensive Response
45.4	Donna Easterday	Visual	5	Comprehensive Response
45.5	Donna Easterday	Local Benefit	6	Comprehensive Response
45.6	Donna Easterday	Plant in Mexico	9	Comprehensive Response
46.1	Ryan Easterday	Other	22	Comprehensive Response, Propose Project is not near Kofa NWR
46.2	Ryan Easterday	Local Benefit	6	Comprehensive Response
47.1	Melinda Fram	Other	22	Comprehensive Response, Propose Project is not near Kofa NWR
47.2	Melinda Fram	Alignment	19	Comprehensive Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
47.3	Melinda Fram	Local Benefit	6	Comprehensive Response
48.1	Ronald Terry	BMGR	3	Comprehensive Response
48.2	Ronald Terry	Visual	5	Comprehensive Response
48.3	Ronald Terry	Property Value	12	Comprehensive Response
48.4	Ronald Terry	EMF	15	Comprehensive Response
48.5	Ronald Terry	Underground	1	Comprehensive Response
49.1	Ronald and Nancy Terry	Alignment	19	Comprehensive Response
49.2	Ronald and Nancy Terry	Visual	5	Comprehensive Response
49.3	Ronald and Nancy Terry	BMGR	3	Comprehensive Response
49.4	Ronald and Nancy Terry	Property Value	12	Comprehensive Response
49.5	Ronald and Nancy Terry	Underground	1	Comprehensive Response
49.6	Ronald and Nancy Terry	EMF	15	Comprehensive Response
50.1	Ronald and Nancy Terry	Alignment	19	Comprehensive Response
50.2	Ronald and Nancy Terry	BMGR	3	Comprehensive Response
50.3	Ronald and Nancy Terry	Visual	5	Comprehensive Response
50.4	Ronald and Nancy Terry	Aviation Safety	2	Comprehensive Response

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Ref #	Commenter	Comment Type	Response #	Response/Treatment
50.5	Ronald and Nancy Terry	Property Value	12	Comprehensive Response
50.6	Ronald and Nancy Terry	Underground	1	Comprehensive Response
51.1	David and Betty Thom	BMGR	3	Comprehensive Response
51.2	David and Betty Thom	Underground	1	Comprehensive Response
52.1	Rob Wilbur	Underground	1	Comprehensive Response
53.1	Carolyn Strickroth	Alignment	19	Comprehensive Response
53.2	Carolyn Strickroth	Visual	5	Comprehensive Response
53.3	Carolyn Strickroth	Alignment	19	Comprehensive Response
53.4	Carolyn Strickroth	Property Value	12	Comprehensive Response
54.1	Donald Begalke	Other	22	Individual Response
54.2	Donald Begalke	Local Benefit, Plant in Mexico	6, 9	Comprehensive Response
54.3	Donald Begalke	Other	22	Individual Response
54.4	Donald Begalke	Other	22	Individual Response
54.5	Donald Begalke	Other	22	Individual Response
54.6	Donald Begalke	Other	22	Individual Response

Ref #	Commenter	Comment Type	Response #	Response/Treatment
54.7	Donald Begalke	Local Benefit	6	Comprehensive Response
54.8	Donald Begalke	Local Benefit	6	Comprehensive Response
54.9	Donald Begalke	Other	22	Individual Response
54.10	Donald Begalke	Other	22	Individual Response
54.11	Donald Begalke	Alignment	19	Comprehensive Response
54.12	Donald Begalke	Underground Option	1	Comprehensive Response
54.13	Donald Begalke	Other	22	Individual Response
54.14	Donald Begalke	Alignment	19	Comprehensive Response

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**COMPILATION OF:
DRAFT ENVIRONMENTAL IMPACT STATEMENT COMMENTS
RECEIVED AS OF JANUARY 29, 2007**

**San Luis Rio Colorado Project
Environmental Impact Statement**

January 29, 2007

**San Luis Rio Colorado Project
Draft Environmental Impact Statement
Comment Package
January 29, 2007**

This document contains a compilation of comments received on the San Luis Rio Colorado Project Draft Environmental Impact Statement (DOE/EIS-0395) (Draft EIS). The initial Draft EIS distribution and local Notice of Availability occurred November 3, 2006. December 26, 2006 was the original comment period close date; however, in response to several extension requests, the comment period officially closed January 10, 2007. A public hearing was held at the Yuma Civic and Convention Center in Yuma, Arizona on December 7, 2006. Comments received subsequent to close of the comment period and distribution of this comment package will be incorporated into the Final EIS as long as they are received in sufficient time to address the concerns prior to the release of the Final EIS; such comments will be distributed for review upon receipt.

Summary of comments received and order of attachments:

- Federal Agency Comments (Note: Some letters contain duplicative language. For example, the DOI letter contains Reclamation's comments and Reclamation sent a letter under separate cover that contains the same comments – both submittals have been included in this compilation.)
 - Seven comment letters were received from Federal agencies
- State of Arizona Agency Comments
 - Five comment letters were received from State of Arizona agencies
- Organization Comments
 - Eleven comment letters were received from organizations
- Public Comments (Note: Some of the public comments contain duplicative language. For example, some members of the public read their written comments at the public hearing and submitted the written comment – both submittals have been included in this compilation.)
 - Twelve members of the public provided comments that were recorded by the court reporter at the public hearing
 - Four written comment letters were received at the public hearing
 - Fourteen additional written comment letters were received via fax, mail, or email

San Luis Rio Colorado Project Draft Environmental Impact Statement

Federal Agency Comments

Department of the Interior
DOI, Bureau of Reclamation (2 Submittals)
Environmental Protection Agency
International Boundary and Water Commission
U.S. Marine Corps, Marine Corps Air Station Yuma (2 Submittals)



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1111 Jackson Street, Suite 520
Oakland, CA 94607

December 22, 2006

ER# 06/1071

John Holt
Environmental Manager
Western Area Power Administration
Desert Southwest Region
P.O. Box 6451
Phoenix, AZ 85005-6457

Subject: Review of the DEIS for the Proposed San Luis Rio Colorado Project for a Presidential Permit to Construct, Operate, Maintain, and Connect a Double-Circuited 500,000-volt Electric Transmission Line Across U.S.-Mexico Int. Border, Yuma, AZ

Dear Mr. Holt,

The U.S. Department of the Interior (DOI) has received and reviewed the subject document and has the following comments from the Bureau of Indian Affairs (BIA), Bureau of Reclamation (Reclamation), and Bureau of Land Management (BLM) to offer:

Bureau of Indian Affairs, Western Regional Office

- 1.1 →• Please briefly discuss Indian Trust Assets (ITAs) such as what they are, DOI's overall trust responsibility in relation to Indian Tribes (Department Manual Release 512 DM 2), and whether ITAs will be affected by the proposed project.
- 1.2 →• Please include additional discussion of agriculture in the EIS – will Prime and Unique Farmlands be considered?
- 1.3 →• Will the results of the Class III cultural resources survey be incorporated into the next iteration of the EIS?
- 1.4 →• Would the National Historic Preservation Act (NHPA), as amended, apply to the portion of the project in Mexico? Please discuss why or why not, noting that Section 402 (16U.S.C.470a-2), an addendum to the NHPA, discusses avoiding or mitigating adverse effects to cultural properties on international projects.
- 1.5 →• Have tribal site visits and interview occurred yet? Please include details, including participating tribal members, tribes, etc.
- 1.6 →• What other laws, Executive Orders, Secretarial Orders, etc. may also be considered during the NEPA process? Examples include the Migratory Bird Treaty Act, NHPA, etc. A sample list would be helpful.

- 1.7 → We suggest that the following should be included in the EIS:
- scoping comments and responses
 - example of tribal consultation and/or scoping letter
 - any consultation letters with the State Historic Preservation Office and/or the U.S. Fish and Wildlife Service

Bureau of Reclamation

- 1.8 → As the land management agency for all Federal lands within the 5-mile zone of the Protective arid Regulatory Pumping Unit, Reclamation will be responsible for issuing any required-use authorizations to accommodate the installation, maintenance, and operation of the proposed transmission line within that boundary. It also appears that Reclamation lands and interests in lands north of the 5-mile zone may also be affected by both the proposed and alternative routes. Use authorizations would be required for those areas as well.

- 1.9 → The fewest significant impacts to environmental and cultural resources are generally accomplished by following existing utility corridors whenever possible. For this project proposal, such a route could include a combination of the applicant's proposed and alternative transmission corridors.

- 1.10 → Impacts to the Flat-Tailed Horned Lizard Management Area will need to follow the mitigation measures, in accordance with the Flat-Tailed Horned Lizard Rangelwide Management Strategy, and provide for required compensation, if applicable.

- 1.11 → Please direct land-use authorization issues to Reclamation's Ms. Peggy Haren at 928-343-8547, and power-related issues to Ms. Ellen Rush at 702-293-8101.

Bureau of Land Management

General Comments

- 1.12 → The EIS states that the Class III cultural resources survey for the project will be conducted upon determination of a preferred route and prior to construction. Without the results of the Class III inventory incorporated into the EIS and an evaluation of project effects on sites inside the Area of Potential Effects, it is not possible to determine whether the project alternatives would have a significant impact on cultural resources. It is also not possible to determine whether the project alternatives would have a significant impact on Native American religious concerns until tribal input is incorporated into the EIS.

- 1.13 → Throughout the document it is not clear if the proposed roads are counted as permanent disturbance. Also, where the equipment and vehicles are driving cross-country the routes used, unless they already exist, may become a permanent disturbance. Once a route is created it becomes open for anyone that wants to use it, and damage to the desert takes years of non-use to even begin to rehabilitate itself.

Specific Comments

- 1.14 → Page 5, Section 1.2.4 U.S. Bureau of Land Management, second paragraph, first sentence: Change 1.6 million to 1.3 million.

1.15 → **Page 25, Section 2.1.1.1 Proposed Transmission Line, third paragraph, sentences 5-6:** Here, and in several places, the document discusses using a staging area within the Flat-Tailed Horn Lizard Management Area (FTHL MA). With the amount of heavy equipment going in and out of this proposed site, the staging of the large poles, and other equipment and supplies stored at the site and the very dry conditions of the environment, the temporary disturbance would take years for nature to rehabilitate. Taking the roads into account, over 2 acres of habitat would be disturbed. There should be a discussion of an alternative staging area that could be used in place of the one within the FTHL MA.

1.16 → **Page 26, Section 2.1.1.1 Proposed Transmission Line, Border-Gila Transmission Line, third paragraph:** The document discusses overland travel, using watering to help with compaction instead of blading the roads within the FTHL MA. We agree it is the preferred method of accessing these sites and hope that it is feasible in all cases but, knowing the general area, there may be some problems. Unless Western Area Power Administration (Western) has tested/checked all the areas, we are not sure that this would work in some of the more sandy areas. There may be a need to look at what the contingency plan would be if just watering the native unbladed land does not work.

1.17 → **Page 190, Section 4.4.3.3.1 Applicant's Proposed Action, Flat-Tailed Horn Lizard (Proposed, State of Arizona Wildlife of Special Concern), second paragraph:** Here, and similar locations in the document it would be useful to include a discussion of constructing in the FTHL MA only in winter as possible mitigation to limit mortality of lizards caused by an attraction to the roads by watering. Also, from experience on other projects, Western might need to consult other projects for the anticipated amount of water since the desert will soak it up quickly. And if work is done in the summer months, the evaporation of the water will be exacerbated and needs to be considered as well.

1.18 → **Page 237, Section 4.11.3 Assessment of Impacts:** This paragraph should focus on environmental justice not cultural resources which are discussed in Section 4.5 starting on page 199.

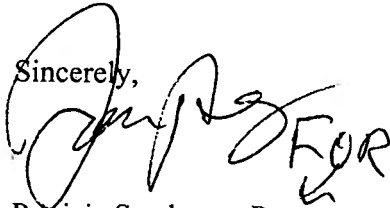
1.19 → **Page 252 Section 5.3 Reasonably Foreseeable Future Actions:** There have been public meetings and numerous articles published in the newspaper regarding a Union Pacific Railroad line down to the San Luis area. Due to significant public interest, it might be prudent to discuss this proposal.

Other Bureaus

The U.S. Geological Survey and U.S. Fish and Wildlife Service, Region 2 have received and reviewed the subject document and have no comments to offer. The National Park Service did not respond to request for comments.

Thank you for the opportunity to review this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Patricia Sanderson Port'. The signature is stylized and includes the letters 'FOR' at the end.

Patricia Sanderson Port
Regional Environmental Officer

cc: OEPC, HQ,
BLM, Phoenix, AZ

**Comment Reference
Document 2**

IN REPLY REFER TO:

BCOO-4821
PRJ-18.00**United States Department of the Interior****BUREAU OF RECLAMATION**Boulder Canyon Operations Office
P.O. Box 61470
Boulder City, NV 89006-1470**DEC 12 2006**

Mr. John Holt
Environmental Manager
Western Area Power Administration
Desert Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

Subject: Review of Draft Environmental Impact Statement for the Proposed San Luis Rio Colorado Project for a Presidential Permit to Construct, Operate, Maintain, and Connect a Double-Circuited 500,000-volt Electric Transmission Line Across the United States-Mexico International Border, Yuma County, Arizona (ER 06/1071)

Dear Mr. Holt:

As requested in a November 8, 2006, memorandum from the Team Leader, Natural Resources Management, Office of Environmental Policy and Compliance, to the Commissioner of the Bureau of Reclamation and other Department of the Interior agencies, Reclamation has the following comments:

**Comment
2.1
(Identical
to 1.8)**

- ➔ As the land management agency for all Federal lands within the 5-mile zone of the Protective and Regulatory Pumping Unit, Reclamation will be responsible for issuing any required-use authorizations to accommodate the installation, maintenance, and operation of the proposed transmission line within that boundary. It also appears that Reclamation lands and interests in lands north of the 5-mile zone may also be affected by both the proposed and alternative routes. Use authorizations would also be required for those areas as well.

**Comment
2.2
(Identical
to 1.9)**

- ➔ The fewest significant impacts to environmental and cultural resources are generally accomplished by following existing utility corridors whenever possible. For this project proposal, such a route could include a combination of the applicant's proposed and alternative transmission corridors.

**Comment
2.3
(Identical
to 1.10)**

- ➔ Impacts to the flat-tailed horned lizard management area will need to follow the mitigation measures, in accordance with the Flat-tailed Horned Lizard Rangewide Management Strategy, and provide for required compensation, if applicable.

↓
Comment 2.4
(Identical to 1.11)

Please direct land-use authorization issues to Ms. Peggy Haren at 928-343-8547, and power-related issues to Ms. Ellen Rush at 702-293-8101.

Sincerely,



Ellen S. Rush
Public Utilities Specialist

cc: Department of the Interior
Office of Environmental Policy and Compliance
Attention: Ms. Patricia Port
Jackson Center One
111 Jackson Street, Suite 520
Oakland, CA 94607

Bureau of Reclamation
Denver Federal Center
Water and Environmental Resources Office
Attention: Ms. Theresa Taylor (84-55000)
P.O. Box 25007
Denver, CO 80225-0007

Bureau of Land Management
Arizona State Office
One North Central Avenue, Suite 800
Phoenix, AZ 85004-4427

Comment Reference
Document 3

Jessica Wilton

From: "Dave Swanson" <SWANSON@wapa.gov>
To: "Mark Wieringa" <WIERINGA@wapa.gov>
Sent: Wednesday, December 27, 2006 9:49 AM
Subject: Fwd: Comment regarding San Luis Rio Colorado Project PowerlineDEIS

Dave Swanson
email: swanson@wapa.gov
Phone: 720-962-7261
Fax: 720-962-7263

>>> Alison Jarrett 12/22/2006 2:25 PM >>>
>>> "Ellen Rush" <ERUSH@lc.usbr.gov> 12/15/2006 1:28 PM >>>
John,
I spoke with Allison regarding a late comment I received and she told me I could send it to you via e-mail. It follows:

3.1 → As lead Federal agency for National Historic Preservation Act compliance for this undertaking, WAPA will coordinate with Reclamation's Lower Colorado Regional (LCR) office on its assessments and reports of cultural resources on Reclamation controlled lands, and will request Reclamation's written concurrence with its determinations of eligibility and findings of affects prior to making a submission to the Arizona State Historic Preservation Office. Please contact Patricia Hicks, Regional Archeologist, LCR at (702) 293- 8359.

3.2 → If you have any questions, please call John Jamrog at 702-293-8362 or me at 702-293-8101.

Ellen Rush
Public Utilities Specialist
Bureau of Reclamation
Boulder Canyon Operations Office

12/28/2006



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

January 5, 2007

Mr. John Holt
Environmental Manager
Desert Southwest Customer Service Region
Western Area Power Administration
U.S. Department of Energy
P.O. Box 6457
Phoenix, AZ 85005

Subject: Draft Environmental Impact Statement (DEIS) for the San Luis Rio Colorado Project, Yuma County, AZ (CEQ# 20060455)

Dear Mr. Holt:

The U.S. Environmental Protection Agency (EPA) has reviewed the DEIS referenced above. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. Our comments are provided in accordance with the EPA specific extension to the comment deadline date from December 26, 2006 to January 5, 2007 granted by you on December 13, 2006 (e-mail request and approval exchange between Laura Fujii, Region 9 EPA, and John Holt, Environmental Manager, WAPA).

North Branch Resources, LLC and Generadora Del Desierto, S.A. de C.V. (Applicants) have requested a Presidential permit and interconnection approvals for a 26-mile 500-kV transmission line from their proposed San Luis Rio Colorado (SLRC) Power Center in Sonora, Mexico, one mile south of the United States-Mexico border, to the Western Area Power Administration's Gila Substation and Arizona Public Service Company's North Gila Substation near Yuma, Arizona (Proposed Action). The DEIS evaluates the Applicants' Proposed Action, a Route Alternative which would avoid potential land use conflicts, a 230-kV Alternative which would require a narrower Right-of-Way (ROW) and shorter structures, and a No Action Alternative.

Based upon our review and the Department of Energy's identification of the Route Alternative combined with the 230-kV Alternative as the preferred alternative, we have rated this DEIS as Lack of Objections (LO) (see enclosed "Summary of the EPA Rating System"). Our rating is based on recognition that the preferred alternative would require a narrower ROW and shorter and less massive structures, reducing impacts to habitat of the Flat-tailed Horned Lizard and other sensitive species, as well as visual

4.1 →

impacts (Chapter 2 Alternatives; Table S-3 Summary Comparison of Environmental Impacts).

- 4.2 → Although the SLRC Power Center would be located in Mexico and not subject to NEPA requirements, the DEIS evaluates its potential environmental impacts within the United States (U.S.) that may result from its construction and operation (p. 36-41 and Appendix A). We commend the Applicants' commitment to build the SLRC Power Center to comply with applicable U.S. environmental standards, in addition to the standards of Mexico's Instituto Nacional de Ecologia (p. 40). We support the implementation of advanced air emission control technology, a wet-dry cooling system, and use of water from the San Luis Rio Colorado municipal wastewater treatment plant for cooling water.
- 4.3 →
- 4.4 →

- 4.5 → We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send two copies to the address above (mail code: CED-2). If you have any questions, please contact me at 415-977-4184 or Laura Fujii, the lead reviewer for this project, at 415-972-3852 or fujii.laura@epa.gov

Sincerely,



Paula Bisson, Manager
Environmental Review Office

Enclosure: Summary of EPA's Rating Definitions

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."



INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

DEC 13 2006

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

Mr. John Holt, Environmental Manager
Western Area Power Administration, Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6547

Subject: United States Department of Energy (DOE), Draft Environmental Impact Statement, Proposed San Luis Rio Colorado Project, for a Presidential Permit

Dear Mr. Holt:

Thank you for the opportunity to comment on the draft Environmental Impact Statement (DEIS) for the proposed new electrical lines and for electricity transmission across the United States-Mexico international border near San Luis, Arizona. The United States Section, International Boundary and Water Commission (USIBWC), has reviewed the DEIS and offers the following and attached comments for your use.

The USIBWC has a duty to access, maintain, and utilize the international boundary monuments along the United States/Mexico international land boundary. The USIBWC is charged with these duties through treaties and international agreements between the United States and Mexico.

- 5.1 → We require that the proposed works and related facilities not affect the permanence, for example disturb the foundations, of existing boundary monuments and not impede access for their
- 5.2 → maintenance. Any proposed construction must allow for line-of-sight visibility between each of the boundary monuments.

- 5.3 → The USIBWC requires that final engineering drawings be submitted to the USIBWC for review and approval prior to beginning any construction near the international boundary. These drawings must show the location of each component in relation to the international boundary and the International Boundary and Water Commission (IBWC) boundary monuments. The
- 5.4 → USIBWC requires that all structures be offset from the international boundary by a minimum of two feet and maintain a clear line-of-sight between any affected boundary monuments. The USIBWC requests that proposed construction activities be accomplished in a manner that does not change historic surface runoff characteristics at the international border. The USIBWC will
- 5.5 → not approve any construction near the international boundary in the United States that increases, concentrates, or relocates overland drainage flows into either country. This requirement is intended to ensure that developments in one country will not cause damage to lands or resources in the other country. The USIBWC will need copies of any hydrological or hydraulic studies and
- 5.6 → site-specific drawings for work proposed in the vicinity of the international boundary, particularly if culverts or other structures are proposed to be constructed in any drainage courses that cross the boundary. We will require assurances that structures constructed along the United

5.7 → States-Mexico border are maintained in an adequate manner and that liability issues created by these structures are addressed.

Regarding the border area, on June 25, 1897 a Presidential Proclamation was signed by President William McKinley to keep lands free from obstruction as protection against smuggling of goods between the United States and Mexico. The proclamation reserved a strip of land 60 feet wide, parallel with and adjacent to the international boundary. Following a recommendation that additional lands be reserved along the boundary, President Theodore Roosevelt signed a Presidential Proclamation on May 27, 1907 reserving a 60-foot wide strip of land parallel with and adjacent to the international boundary on all lands which were not already patented, to the boundary line through New Mexico, Arizona, and California. It is the responsibility of the

5.8 → United States federal agencies to ensure the integrity of the 60-foot strip of reserved land. Similar lands are also designated by Mexico along its side of the land boundary. The provisions of the 1907 Presidential declaration for the 60-foot wide strip should be observed.

5.9 → Once the proposed project is defined, we recommend that project specifics be submitted for review and comment by the USIBWC and the Mexican Section of the IBWC. If you have any

5.10 → questions regarding these comments, please call me at (915) 832-4702 or contact R. Steve Fox, Environmental Protection Specialist, at (915) 832-4736.

Sincerely,



Gilbert G. Anaya
Supervisory Environmental Protection Specialist
Environmental Management Division

Attachment:
As Stated:

USIBWC Comments on the Department of Energy Draft Environmental Impact Statement on Proposed San Luis Rio Colorado Project, Yuma County, Arizona, dated October 2006.

General Comments.

5.11 → The International Boundary and Water Commission (IBWC) must consult, particularly on the proposed action's groundwater use, in accordance with IBWC Minute No. 242.

5.12 → The maps show that the transmission line crosses the boundary between Monuments 200 and 201. The reviewer is not sure how far away the monuments are from the transmission infrastructure. It would be useful for the EIS to address line of sight and monument access issues, if applicable. In addition, does the transmission line cross any USIBWC right-of-way?

5.13 → There is a passing reference to the Presidential Proclamation reserving land along the boundary to ensure that border enforcement activities can take place unimpeded.

5.14 →

5.15 → Specific Comments.

5.15.1 → 1. Summary. Page XIII - XIV. The part of the table that discusses Water. The authors of the DEIS need to be clear whether you are speaking about the United States Section or the Mexican Section or the International Boundary and Water Commission, United States and Mexico. It's true that the International Boundary and Water Commission regulates water use within the 5-mile zone per Minute 242. However, perhaps the writer intended to say that the United States Section of the International Boundary and Water Commission regulates water use within the five-mile zone in the United States. Water use in Mexico in the five-mile zone is under regulation by *the Mexican Section of the International Boundary and Water Commission* (rather than the stated "Comision Internacional..."). This is essentially the same comment that is made below regarding Table 1.3-3.

5.15.2 → 2. Page 9. Table 1.3-1. Insert before "International," the words "United States Section."

5.15.3 → 3. Page 14. Table 1.3-3. Water Section. Delete "Mexico" and insert "Mexican Section of the." Use International Boundary and Water Commission (IBWC) in the correct context in the sentence in the subsection titled Treatment in the EIS. You could state in other words that the United States Section of the International Boundary and Water Commission (USIBWC) is in 'charge' of limiting the groundwater pumping to the agreed on quantity on the United States (U.S.) side within the 5-Mile Zone while the Mexican Section of the International Boundary and Water Commission (MXIBWC) is in 'charge' of limiting pumping in the 5-Mile Zone on the Mexican side. If my interpretation is correct, then the sentence is correct partly in that you state that the IBWC oversees the U.S. side and the Mexican side. However, the USIBWC is the responsible agency in the U.S, under IBWC Minute No. 242. And as the reviewer understands, there are arrangements between the USIBWC and the United States Bureau of Reclamation (Reclamation) on the management and monitoring of the pumping zone in the U.S.

5.15.4 → 4. Page 32. Paragraph 1. Delete "Pollution" and insert "Pollutant."

- 5.15.5 → 5. Page 40. First full paragraph. Although the paragraph focuses on the type of proposed power plant to be located in Mexico, the paragraph describes the conservation of water required for operation of the plant. Based on the information provided in that paragraph, you could use the following information on IBWC Minute No. 242 here or elsewhere in the DEIS:

Summary of IBWC Minute No. 242 Point 5. Point 5 Provides: *Pending the conclusion by the Governments of the United States and Mexico of a comprehensive agreement on groundwater in the border areas, each country shall limit pumping of groundwater in its territory within five miles (eight kilometers) of the Arizona-Sonora boundary near San Luis to 160,000 acre-feet (197,358,000 cubic meters) annually.*

Under IBWC Minute No. 242, the Commission is continuing to pursue exchange of groundwater data for the major groundwater basins lying partly in the U.S. and partly in Mexico, including the Colorado River delta area. The objective of the exchange of groundwater data is to make available hydrologic, geologic and water quality data in either country to both Sections of the Commission to enable evaluation of the conditions of the international groundwater basins.

Summary of IBWC Minute No. 242 Point 6. Point 6 provides: *. . . the United States and Mexico shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources, or undertaking substantial modifications of present developments, in its own territory in the border area that might adversely affect the other country.*

- 5.15.6 → 6. Page 169. First full paragraph.
Sentence 2. Insert “United States Section of the” before the word “International.”
Sentence 3. Insert “US” before “IBWC.”
Sentence 4. Regarding the stated “The proposed project has been developed under consultation with agencies in both the United States and Mexico.” The scope of the sentence seems broad. Please specify. Likely, there has been talks with Mexican officials. Making contacts is likely. Consultation is unlikely except for example if you consider sending a report or conducting coordination with officials to be consultation.

- 5.15.7 → 7. Page 267. Insert “United States Section, “ before “International.”

- 5.15.8 → 8. Page 273. Insert “United States Section,” before “International.”

- 5.15.9 → 9. Acronyms. Page xii. Insert “US” before “IBWC.” Insert “United States Section,” before “International.”
Page xiii. Delete “Pollution” and insert “Pollutant.”



UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
BOX 99100
YUMA ARIZONA 85369-9100

IN REPLY REFER TO:
6280
ENVL
05 Oct 2006

CERTIFIED MAIL

Tierra Environmental Consultants
Attn: Ms. Jessica Wilton
5420 South Lakeshore Drive, Suite 104
Tempe, AZ 85283

Ms. Wilton:

Thank you for this opportunity to comment on your September 8, 2006 Draft Environmental Impact Statement (EIS) for the Western Area Power Association (WAPA) power line.

6.1 → We are concerned with flight safety for aircraft approaching our Auxiliary Airfield II (Aux II). The height of the power line at Avenue 4E and County 19th Street, and the resulting flight path clearance, is a critical issue for MCAS Yuma. Aux II is used by the AV-8B Harrier aircraft to practice Field Carrier Landings prior to deploying aboard ship. The proposed power line is located approximately 3.5 miles from Aux II. The aircraft landing at Aux II will fly directly over the power line as they are descending to land. Helicopter units operating in the area would also have to cross the power line. We prefer 6.2 → your proposed alternatives to construct the line along Avenue 3E, as shown in figure 2.3-1 and 2.3-2, vice the original 6.3 → location on 4E. We also endorse the 230kV alternative as it will reduce the average structure height of the towers. 6.4 → Recommend submitting Federal Aviation Administration (FAA) Advisory Circular 70/7460.2K to the FAA to begin the required Part 77 consultation.

6.5 → The drawings contained in the EIS do not provide adequate detail of your proposed alignment either in relation to your current easement along the western edge of the Barry M. Goldwater Range (BMGR), or in relation to the Area Service Highway (ASH) right-of-way. This is especially critical in the northwest corner of the range. Your proposed corridor appears to be approximately 1/2 mile wide as shown on land2_SLRC_082406.doc, figure 2.1-2, pg 21.

- 6.6 → Recommend you submit larger, more precise maps to more clearly define any impact (operational and environmental) of the proposed alignment. In those areas where the proposed alignment
- 6.7 → parallels the ASH or the current easement, it is recommended that you provide a cross-section diagram. Obstruction lighting
- 6.8 → must be compatible with our night vision goggles.

- 6.9 → World War Two - era gunnery range berms are immediately south of County 14th Street and may be within your proposed right-of-way. This will require your consultation with State Historic Preservation Office (SHPO). The 1/2 mile wide
- 6.10 → corridor on 4E is adjacent to the rifle range at County 19th Street and will impact on the rifle range during construction.
- 6.11 → Construction of the ASH will alter the existing ground contours along the proposed western alignment. This may affect your 4E design. Controlling access to any new or existing access roads within the BMGR needs to be a requirement in your design and is
- 6.12 → a critical operational concern for Marine Corps Air Station (MCAS) YUMA. This is to preclude the use of these roads by the general public to cut across the range and prevent unauthorized access to these military training areas.

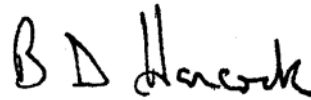
- 6.13 → Your National Environmental Policy Act (NEPA) analysis efforts must include the cumulative impacts for your power lines as well as other lines in existence and planned for this area. This analysis should also include the local need for this power capacity and/or where else this power is needed.

- 6.14 → In conclusion, Congress reserved the BMGR-West for military purposes, vesting full administrative authority for environmental stewardship, real estate management and operational control with Dept. of the Navy (DON) for a period of 25 years ending 2024. This legal stipulation is found in the Military Lands Withdrawal Act-99, P.L. 106-65. Stewardship requirements contained in the MLWA-99, MCO P5090.2 and DoD directives require MCAS Yuma to use their authorities to manage the BMGR to protect our mission requirements while also meeting environmental regulatory requirements. Consequently, the Department of the Navy (DON), acting as administrators and stewards of the BMGR, has jurisdiction by law and special expertise with respect to environmental impacts to the BMGR. This proposed project appears to have both operational and environmental impacts to DON activities.

6280
ENVI

6.15 → Our point of contact in this matter is my Environmental
Director, Mr. Ken Yargus, at (928) 269-2282.

Respectfully,



B. D. Hancock
Colonel USMC
Commanding Officer



Comment Reference
Document 7

UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
BOX 99100
YUMA ARIZONA 85369-9100

6280
ENVL
21 DEC 2005

CERTIFIED MAIL

Western Area Power Administration
Desert Southwest Customer Service Region
Attn: Mr. John Holt, Environmental Manager
P.O. Box 6457
Phoenix, AZ 85005

Dear Mr. Holt:

Thank you for this opportunity to comment on your October 2006 Draft Environmental Impact Statement (EIS) for the Western Area Power Association (WAPA) power line.

7.1 → Enclosure (1) articulates our concerns with flight safety for aircraft approaching our Auxiliary Airfield II (Aux II). The height of the power line at Avenue 4E and County 19th Street, and the resulting flight path clearance, is a critical issue for MCAS Yuma. Aux II is used by the AV-8B Harrier aircraft to practice Field Carrier Landings prior to deploying aboard ship. The proposed power line is located approximately 2.7 miles from Aux II. The aircraft landing at Aux II will fly directly over the power line as they are descending to land. Helicopter units operating in the area would also have to cross the power line. Enclosure (2) contains additional comments.

7.2 → The route alternative, to construct the line along Avenue 3E as shown in figure 2.2-1, is preferable to the proposed action.
7.3 → The 230kV alternative is also preferable as it will reduce the average structure height of the towers. Recommend submitting
7.4 → Federal Aviation Administration (FAA) Advisory Circular 70/7460.2K to the FAA to begin the required Part 77 consultation.

7.5 → Our Air Traffic Controllers also identified a safety concern associated with our main airfield. Again, recommend submitting a FAA Advisory Circular 70/7460.2K to clarify those issues.
7.6 → Recommend a site-specific comparison of the additional cost of an underground line to the benefits this would gain in aviation

safety, reduced impacts to military training, and reduced impacts to visual resources.

7.7 → Your NEPA analysis efforts must calculate the cumulative impacts for your power lines as well as other lines in existence and planned for this area. Will other proposed power lines mitigate the local need for this power as articulated in your purpose and need statement?

7.8 → MCAS Yuma is concerned about potential impediments to our military mission caused by cumulative impacts of non-military actions which would result in the potential listing of a species under the Endangered Species Act. The proposed and alternate power line routes are partially located or adjacent to the Yuma flat-tailed horned lizard (FTHL) Management Area (MA). The FTHL is protected under a multi-agency Conservation Agreement with the U.S. Fish and Wildlife Service and neighboring federal and state agencies. The draft EIS does not fully address the habitat disturbance to the FTHL and omits some relevant mitigation measures established under the FTHL Rangewide Management Strategy (2003).

7.9 → Stewardship requirements contained in the Military Lands Withdrawal Act of 1999 as well as Marine Corps and Department of Defense directives require MCAS Yuma to manage the BMGR to protect our mission requirements while also meeting environmental regulatory requirements. This proposed project appears to have both environmental and operational impacts to DON activities.

7.10 → Our point of contact in this matter is Mr. Joe Britain at (928) 269-5581.

Sincerely,



B. D. Hancock
Colonel, U. S. Marine Corps
Commanding Officer

Enclosures: (1) 3rd MAW ltr 5800 CG of 12 Dec 06
(2) Additional Comments

Copy to:
CO, MAG-13
CG, MCIWEST
CG, 3rd MAW



UNITED STATES MARINE CORPS
THIRD MARINE AIRCRAFT WING, MARFORPAC
MCAS MIRAMAR
P.O. BOX 452038
SAN DIEGO, CALIFORNIA 92145-2038

IN REPLY REFER TO:
5800

CG

12 DEC 2006

From: Commanding General, 3d Marine Aircraft Wing
To: Commanding General, Marine Corps Installations West
(Attn: SJA, DOSS)

Subj: FLIGHT SAFETY CONCERNS IN REGARD TO THE PROPOSED WESTERN
AREA POWER ASSOCIATION (WAPA) POWER LINE

- 7.11 → 1. The proposed Western Area Power Association (WAPA) power line) presents significant safety concerns for Third Marine Aircraft Wing units. This proposal places power lines in close proximity to the restricted area and Auxiliary Airfield II (AUX II). A power line in this vital location will certainly impact fixed and rotary wing operations and degrade our training as we prepare units for on-going deployments in support of the Global War on Terrorism. The location and height of the power lines will decrease the safety margin for rotary wing operations using AUX II and those aircraft transiting in and out of MCAS Yuma via Point Tango. One only has to review the 22 January 2004 aviation mishap where an HMM-166 UH-1N (see DTG281830Z Apr 04) hit a power line at Camp Pendleton to be reminded of the risks incurred when aviation operations are conducted in an area where power lines are close to training areas.
- 7.12 → 2. Before we provide support to such a project, we would prefer to have a feasibility study into alternate routes or underground transmission lines. This study should address the issue of whether unshielded high-voltage power lines could have a
- 7.13 → negative impact on complex avionics equipment on modern aircraft conducting low-level training near them. Our focus on aviation
- 7.14 → safety for current and future generations of aircrews and aircraft require us to take a strong stand against any potential hazard to aviation in the vicinity of MCAS Yuma.


S. F. HELLAND

Copy to:
CO, MCAS YUMA
CO, MAG-13

Enclosure (1)

USMC Yuma Comment Matrix
 San Luis Rio Colorado Project
 Draft Environmental Impact Statement
 U.S. Department of Energy

7.15 - Additional Comments

Comment Number	Page Number	Line Number	Commenter	Comment	Response
1	III, Section S.2	11-12	Ken Yargus, MCAS Yuma Environmental Department	Section S.2, Applicant's Purpose and Goals, mentions Yuma's need for additional local generation and "reliably must run" generation facilities. Would this local need be satisfied with other power upgrade projects being planned, such as the APS Palo Verde Hub to North Gila?	
2	XI, summary, Table S-2	13	Ken Yargus, MCAS Yuma Environmental Department	Please change "MCAS Yuma determined that the Proposed Project does not appear to present interference problems for MCAS operations" to "MCAS Yuma determined that the Proposed Project does not appear to present electromagnetic interference problems for MCAS operations".	
3	7	13, 14	J.C. Britain, PE, MCAS Yuma Environmental Department	APS as the local Utility Co. is developing new power lines for future demand growth. APS efforts appear to address alleged insufficient local generation and any constrained transmission system. This DEIS appears to ignore APS efforts. As such, there appears to be no local need for power from Mexico. This DEIS must consider cumulative impacts of this proposed action and other actions (APS, ASH, AZ Clean Fuels, etc.) as well as power needs.	
4	Page 12, table 1.3-3	13	Ken Yargus, MCAS Yuma Environmental Department	Please change "MCAS Yuma determined that the Proposed Project does not appear to present interference problems for MCAS operations" to "MCAS Yuma determined that the Proposed Project does not appear to present electromagnetic interference problems for MCAS operations".	
5	19	3 rd Para. Lines 13, 14	J.C. Britain, PE, MCAS Yuma Environmental Department	The DEIS does not appear to address the military aviation safety concerns. It may be necessary to install sections [adjacent to flight routes] of this line underground, which is a viable option based on new technologies	
6	36	Figure 2.1-1	Fred Daniel, MCAS Yuma Environmental Department	Require munitions training and identification during drilling or excavation operations on the Barry M. Goldwater Range. If the drill hits a refusal point and attempts to force their way through it, they could have a serious reaction if the refusal is from a bomb or munitions round.	

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Comment Number	Page Number	Line Number	Commenter	Comment	Response
7	45	Figure 2.3-1	J.C. Britain, PE, MCAS Yuma Environmental Department	The drawings contained in the draft EIS do not provide adequate detail of your proposed alignment either in relation to your current easement along the western edge of the Barry M. Goldwater Range (BMGR), or in relation to the Area Service Highway (ASH) right-of-way. This is especially critical in the northwest corner of the BMGR. Recommend you submit larger, more precise maps to more clearly define any impact (operational and environmental) of the proposed alignment. In those areas where the proposed alignment parallels the ASH or the current easement, it is recommended that you provide a cross-section diagram.	
8	58	Section 2.3.5	J.C. Britain, PE, MCAS Yuma Environmental Department	MCAS Yuma agrees that the alternative route and that the 230-kV options are preferable to the proposed action. World War Two - era gunnery range berms are immediately south of County 14th Street and may be within your proposed right-of-way. This will require your consultation with State Historic Preservation Office (SHPO). The corridor on 4E is adjacent to the rifle range at County 19th Street and will impact on the rifle range during construction. Construction of the ASH will alter the existing ground contours along the proposed western alignment. This may affect your 4E design. Controlling access to any new or existing access roads within the BMGR needs to be a requirement in your design and is a critical operational concern for MCAS YUMA. This is to preclude the use of these roads by the general public to cut across the range and prevent unauthorized access to these military training areas.	
9	102		Traci Allen, MCAS Yuma Range Management Department	California Brown Pelicans are known to infrequently occur on BMGR in agricultural areas and near canals during the summer monsoon season. If construction occurs during this time, the applicants will need a contingency plan for the possibility of dehydrated juvenile California Brown Pelicans wandering off-course from their migratory route and landing on or near the project site. Assistant Refuge Manager of the Kofa NWR, Susanna Henry should be notified if pelicans land in the construction area.	

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Comment Number	Page Number	Line Number	Commenter	Comment	Response
10	101		Traci Allen, MCAS Yuma Range Management Department	The wildlife section does not address the MBTA. If construction occurs during the migratory breeding bird season, March - September, preconstruction bird surveys and appropriate mitigation measures should be taken for nesting birds. An applicable MBTA permit may be required. A written report of nesting birds documented on the range must be submitted to the MCAS Yuma biologist and the USFWS.	
11	109		Traci Allen, MCAS Yuma Range Mgt. Department	Although loggerhead shrikes have not been reported to be near the centerline according to the ACFD HDMS 2006, Loggerhead shrikes are a common species occurring on BMGR (Allen Per. Obs.)	
12	166	Section 4.2	J. O. Buehler, MCAS Yuma Environmental Department	Total disturbance of soil for this project is 134.1 acres which will require a NOI, SWPPP, and NOT. In section 4.2 Water Resources, the EIS acknowledges the need for a SWPPP; however, it does not discuss the NOI, BMP's and final stabilization prior to submitting the NOT. Also, if any of the construction will be on MCAS Yuma/BMGR land, MCAS will require to review the NOI, SWPPP, and NOT prior to submitting to the ADEQ.	
13	180		Traci Allen, MCAS Yuma Range Management Department	Noxious weed control. BMGR is concerned with the potential spread of Sahara mustard, common in sandy soils of agricultural land and road sides of the project area. BMGR requests the applicant to take precautions by washing the undercarriage of vehicles prior to entering the range.	
14	189		Traci Allen, MCAS Yuma Range Management Department	Western burrowing owls have been recently sighted on the BMGR by biologists and range wardens (Allen Pers. Obs.). Additionally, Western burrowing owls are year-round residents in southwestern Arizona. This species is protected under the MBTA.	
15	190,196		Traci Allen, MCAS Yuma Range Management Department	BMGR is concerned about creating access roads on the range. Under the proposed route, a 4.4 mile "temporary access road" along FTHL habitat translates into 6.62 acres of habitat loss and 4.08 acres for the alternate route. Will these access roads be used also for the operation and maintenance of the transmission line? Although this area is not open for public, an additional road may increase unwarranted traffic and more opportunity for FTHL mortality. Also, roads created in the Sonoran desert ecosystem takes decades to rehabilitate.	

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Comment Number	Page Number	Line Number	Comments	Comment	Response
16	190		Traci Allen, MCAS Yuma Range Mgt. Department	Increase in perching areas also attracts Loggerhead strikes which prey on FTHL. (See FTHL Rangewide Management Strategy page 62).	
17	190		Traci Allen, MCAS Yuma Range Management Department	The discussion on the FTHL is confusing- particularly the first paragraph. You need a diagram depicting the Yuma FHTL MA, the proposed power line route, location of new access road, and the proposed ASH.	
18	191, 196		Traci Allen, MCAS Yuma Range Management Department	Mitigation Methods for either the proposed route or the alternate route did not include a compensation analysis outlined in the FTHL Rangewide Management Strategy. This analysis should include habitat loss for the placement of transmission lines, new road access, and all structures.	
19	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Department	I have studied the proposal and the helicopter mishap from 2004. Building a powerline that close to an Auxiliary Field is not the smartest thing to do. The company that is building the powerline doesn't realize the potential danger to aviation. I also received the report from the Naval Safety Center on aviation incidents involving powerline/ stanchions. This report starts on 04/17/1980 and goes to 10/26/2005. Of the 57 listed incidents (involving powerlines) there were 18 Class A mishaps, 5 Class B mishaps, 20 Class C mishaps, and 14 Hazard Reports generated. The following is a list of some of the lessons learned from studying these documents.	
20	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Department	Cultural lighting (at night) in the vicinity of powerlines / stanchions make it very difficult to discern them from the surrounding terrain during low light level conditions when a pilot is using NVG's with the bright source protection feature.	
21	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Department	During a low light level night, aircrews may have difficulty maintaining positive visual contact with hazards due to the surrounding terrain.	
22	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Dept.	Due to the terrain surrounding powerlines and/or stanchions, it may be impossible to see the power lines and towers even when the aircrew know their exact location.	

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Comment Number	Page Number	Line Number	Commenter	Comment	Response
23	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Dept.	Only towers that are silhouetted against the night sky may be seen however even those may be extremely difficult to see.	
24	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Department	According to the 3rd MAWT&R Manual Admin (Chapter 5, Para 501.IG) rules for the conduct of low altitude flight: If TERF training is being conducted the low altitude flight training area should be free of vertical obstacles that constitute a danger to the free navigation required of low altitude training.	
25	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Department	According to the MAWTS-1 NVD manual, three primary terrain factors need to be considered for NVG terrain flight a. Terrain reflectivity (albedo) b. Terrain contrast c. Terrain shadowing	
26	213	Section 4.7.2, Significant Criteria	LtCol Fack, MCAS Yuma Safety Department	The ability to see terrain features with NVG's is solely a function of the amount of light reflected by the terrain. Terrain contrast is a measure of the difference between the reflectivity of two or more surfaces. The greater the contrast, the easier it is to see terrain and objects.	
27	217	Sect. 4.7.4, Mitigation Measures	LtCol Fack, MCAS Yuma Safety Department	If stanchions are painted with a matte grey paint, the paint does not provide much contrast between it and the surrounding area. If these stanchions are lit or painted with reflective paint/material, they may provide additional clues to the location of flight hazards.	
28	217	Sect. 4.7.4, Mitigation Measures	Ken Yargus, MCAS Yuma Environmental Department	Request obstruction lighting on stanchions compatible with our night vision goggles.	
29	254	Section 5.3.4 APS Projects	Dan Nail, MCAS Yuma Environmental Department	<i>Palo Verde Hub to North Gila 500-kV Transmission Line Project</i> APS "has plans to build a new 500-kilovolt transmission line between the Palo Verde Hub (the area around the Palo Verde Nuclear Generating Station) and the Yuma Area to accommodate unprecedented growth" (APS 2006a). Explain why we need two 500kv transmission lines to supply Yuma.	

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Comment Number	Page Number	Line Number	Commenter	Comment	Response
30	254	Section 5.3.4	Dan Nail, MCAS Yuma Environmental Department	<p>Two 48-MW Generating Plants APS currently has an application before the Arizona Corporation Commission (ACC) and intends to build two new generating plants, capable of producing 48-MW each, by the summer of 2008. The generating plants would likely be located adjacent to the Yucca power plant (Yuma Sun 2006c). These additional facilities would be constructed to help serve the growing need for additional power in the Yuma area.</p> <p>Again, explain why Yuma needs the San Luis Rio Colorado 500 kv line</p> <p>230-kV Transmission System Expansion in Yuma APS plans to expand portions of the Yuma area transmission system to 230kV as identified in the 2003-2012 Ten-Year Plan (APS 2003) and in the Reliability Must-Run Analysis 2006-2015 (APS 2006c). These reports identified plans to connect a 230-kV transmission line between Gila Bend and Yuma, construct a 500/230-kV transformer and a 230/69-kV transformer at North Gila Substation, construct a new 230-kV substation, and add additional 230-kV transmission in the Yuma area. Explain why Yuma needs so many power lines and who else they are supplying</p>	
31	254, 255	Section 5.3.4	Dan Nail, MCAS Yuma Environmental Department	<p>5.3.5 Western Transmission System Upgrade Western Area Power Administration (Western) plans to upgrade its entire 161-kV transmission system, including associated substations, in the Yuma area to 230-kV. These upgrades are expected to start in 2007. However, when current components of the 161-kV transmission system fail, they are being replaced with 230-kV equipment</p> <p>Is this becoming redundant? Where else is all this power going?</p> <p>BMGR is concerned about impeding the military mission caused by the cumulative impacts of non-military actions to FTHL in the Yuma FTHL MA. The cumulative impacts section did not calculate the quantifiable impacts caused by 242 well field and associated facilities, existing transmission line, and proposed ASH.</p> <p>Under birds category, great-tailed grackele is misspelled. Should be great-tailed grackle!</p> <p>The Flat-tailed horned lizard should be listed under the reptile category.</p>	
32	255	5.3.5	Dan Nail, MCAS Yuma Environmental Department		
33	257		Traci Allen, MCAS Yuma Range Management Department		
34	Appendix B, Table 3		Traci Allen, MCAS Yuma Range Mgt		
35	Appendix B, Table 4		Traci Allen, MCAS Yuma Range Mgt		

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San Luis Rio Colorado Project Draft Environmental Impact Statement

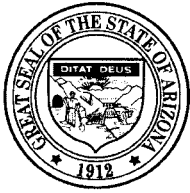
State of Arizona Agency Comments

Arizona Department of Environmental Quality (2 Submittals)

Arizona Department of Transportation

Arizona Game and Fish Department

Arizona State Historic Preservation Office



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens
Director

November 30, 2006

Comment Reference
Document 8

Mr. John Holt, Environment Manager
Desert Southwest Customer Service Region
Western Area Power Administration
P.O. Box 6457
Phoenix, AZ 85005

Project Location: San Luis Rio Colorado Project Draft Environmental Impact Statement
October 2006 (DOE/EIS-0395)

Dear Mr. Holt:

The Air Quality Division has reviewed the project, as described in your letter, with enclosures, dated September 21, 2005, that you submitted for a General Conformity Determination with the Arizona State Implementation Plan in accordance with Clean Air Act Section 176(c)(1); 58 Federal Register 63214-63259; Title 40 Code of Federal Regulations Part 51, Subpart W §§ 51.850-51.860; Title 40 Code of Federal Regulations Part 93, Subpart B §§ 93.150-160; and Arizona Administrative Code R18-2-348 (approved into the Arizona State Implementation Plan April 23, 1999; effective June 22, 1999). The Air Quality Division has concluded that a General Conformity

8.1 → Determination is not required for the following reason(s):

- Not a Federal action as defined in Title 40 CFR § 51.852 [and § 93.152]
- Not in a Nonattainment or Maintenance area
- Exempt Federal action listed in Title 40 CFR § 51.853(c) [and § 93.153(c)]

8.2 → Nevertheless, we are concerned that the proposed project, potentially, may affect the area's environment with 10-micron size particulate matter (PM10). To comply with applicable air pollution control requirements and minimize adverse impacts on public health and welfare, the following information is provided:

REDUCE DISTURBANCE of PARTICULATE MATTER during CONSTRUCTION

8.3 → This action, plan or activity may temporarily increase ambient particulate matter (dust) levels. Particulate matter 10 microns in size and smaller can penetrate the lungs of human beings and animals and is subject to a National Ambient Air Quality Standard (NAAQS) to protect public health and welfare. Particulate matter 2.5 microns in size and smaller is difficult for lungs to expel and has been linked to increases in death rates;

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1515 East Cedar Avenue • Suite F • Flagstaff, AZ
86004

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400 West Congress Street • Suite 433 • Tucson, AZ
85701

heart attacks by disturbing heart rhythms and increasing plaque and clotting; respiratory infections; asthma attacks and cardiopulmonary obstructive disease (COPD) aggravation. It is also subject to a NAAQS.

8.4 → The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off the construction site:

- I. Site Preparation and Construction
 - A. Minimize land disturbance;
 - B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air
 - C. Cover trucks when hauling soil;
 - D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
 - E. Stabilize the surface of soil piles; and
 - F. Create windbreaks

- II. Site Restoration
 - A. Revegetate any disturbed land not used;
 - B. Remove unused material; and
 - C. Remove soil piles via covered trucks.

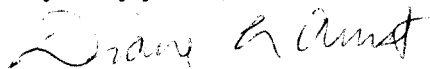
8.5 →

The following rules are applicable to reducing dust during construction, demolition and earth moving activities are enclosed:

- 8.6 →
- Arizona Administrative Code R18-2-604 through -607
 - Arizona Administrative Code R18-2-804

8.7 → Should you have further questions, please do not hesitate to call Andra Juniel at (602) 771-4417 or Dave Biddle at (602) 771-2376 of the Planning Section Staff.

Very truly yours,



Diane L Arnst, Manager
Air Quality Planning Section

Enclosures

Cc: Edward M. Ranger, EV Administrative Counsel
David Biddle, Environmental Program Specialist, Air Planning
File No. 142294

ARTICLE 8. EMISSIONS FROM MOBILE SOURCES (NEW AND EXISTING)**R18-2-801. Classification of Mobile Sources**

- A. This Article is applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations.
- B. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-801 renumbered to Section R18-2-901, new Section R18-2-801 renumbered from R18-2-601 effective November 15, 1993 (Supp. 93-4).

R18-2-802. Off-road Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. Off-road machinery shall include trucks, graders, scrapers, rollers, locomotives and other construction and mining machinery not normally driven on a completed public roadway.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-802 renumbered to Section R18-2-902, new Section R18-2-802 renumbered from R18-2-602 effective November 15, 1993 (Supp. 93-4).

R18-2-803. Heater-planer Units

No person shall cause, allow or permit to be emitted into the atmosphere from any heater-planer operated for the purpose of reconstructing asphalt pavements smoke the opacity of which exceeds 20%. However three minutes' upset time in any one hour shall not constitute a violation of this Section.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-803 renumbered to Section R18-2-903, new Section R18-2-803 renumbered from R18-2-603 effective November 15, 1993 (Supp. 93-4).

R18-2-804. Roadway and Site Cleaning Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

R18-2-805. Asphalt or Tar Kettles

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any asphalt or tar kettle smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the operation of an asphalt or tar kettle without minimizing air contaminant emissions by utilizing all of the following control measures:
1. The control of temperature recommended by the asphalt or tar manufacturer;
 2. The operation of the kettle with lid closed except when charging;
 3. The pumping of asphalt from the kettle or the drawing of asphalt through cocks with no dipping;
 4. The dipping of tar in an approved manner;
 5. The maintaining of the kettle in clean, properly adjusted, and good operating condition;
 6. The firing of the kettle with liquid petroleum gas or other fuels acceptable to the Director.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-805 renumbered to Section R18-2-905, new Section R18-2-805 renumbered from R18-2-605 effective November 15, 1993 (Supp. 93-4).

- c. If the burning would occur at a solid waste facility in violation of 40 CFR 258.24 and the Director has not issued a variance under A.R.S. § 49-763.01.
- E. Open outdoor fires of dangerous material. A fire set for the disposal of a dangerous material is allowed by the provisions of this Section, when the material is too dangerous to store and transport, and the Director has issued a permit for the fire. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The Director shall permit fires for the disposal of dangerous materials only when no safe alternative method of disposal exists, and burning the materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts that will endanger health or safety.
- F. Open outdoor fires of household waste. An open outdoor fire for the disposal of household waste is allowed by provisions of this Section when permitted in writing by the Director or a delegated authority. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The permittee shall conduct open outdoor fires of household waste in an approved waste burner and shall either:
1. Burn household waste generated on-site on farms or ranches of 40 acres or more where no household waste collection or disposal service is available; or
 2. Burn household waste generated on-site where no household waste collection and disposal service is available and where the nearest other dwelling unit is at least 500 feet away.
- G. Permits issued by a delegated authority. The Director may delegate authority for the issuance of open burning permits to a county, city, town, air pollution control district, or fire district. A delegated authority may not issue a permit for its own open burning activity. The Director shall not delegate authority to issue permits to burn dangerous material under subsection (E). A county, city, town, air pollution control district, or fire district with delegated authority from the Director may assign that authority to one or more private fire protection service providers that perform fire protection services within the county, city, town, air pollution control district, or fire district. A private fire protection provider shall not directly or indirectly condition the issuance of open burning permits on the applicant being a customer. Permits issued under this subsection shall comply with the requirements in subsection (D)(3) and be in a format prescribed by the Director. Each delegated authority shall:
1. Maintain a copy of each permit issued for the previous five years available for inspection by the Director;
 2. For each permit currently issued, have a means of contacting the person authorized by the permit to set an open fire if an order to extinguish open burning is issued; and
 3. Annually submit to the Director by May 15 a record of daily burn activity, excluding household waste burn permits, on a form provided by the Director for the previous calendar year containing the information required in subsections (D)(3)(e) and (D)(3)(f).
- H. The Director shall hold an annual public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.
- I. Nothing in this Section is intended to permit any practice that is a violation of any statute, ordinance, rule, or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-802, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 10 A.A.R. 388, effective March 16, 2004 (Supp. 04-1).

R18-2-603. Repealed

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-803, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4). Repealed effective October 8, 1996 (Supp. 96-4).

R18-2-604. Open Areas, Dry Washes, or Riverbeds

- A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.
- B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
- C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-608. Mineral Tailings

No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

Historical Note

Section R18-2-608 renumbered from R18-2-408, new Section R18-2-408 adopted effective November 15, 1993 (Supp. 93-4).

R18-2-609. Agricultural Practices

A person shall not cause, suffer, allow, or permit the performance of agricultural practices outside the Phoenix and Yuma planning areas, as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210, including tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-609 renumbered from R18-2-409 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 6 A.A.R. 2009, effective May 12, 2000 (Supp. 00-2). Amended by final rulemaking at 11 A.A.R. 2210, effective July 18, 2005 (Supp. 05-2).

R18-2-610. Definitions for R18-2-611

The definitions in Article 1 of this Chapter and the following definitions apply to R18-2-611:

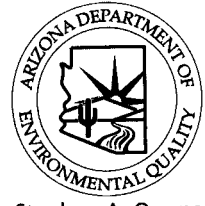
1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM₁₀ emissions from a regulated agricultural activity.
5. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
6. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
7. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Maricopa PM₁₀ nonattainment area.
8. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
9. "Committee" means the Governor's Agricultural Best Management Practices Committee.
10. "Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.
11. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
12. "Cropland" means land on a commercial farm that:
 - a. Is within the time-frame of final harvest to plant emergence;
 - b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
 - c. Is a till row.



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens
Director

December 26, 2006

Comment Reference
Document 9

Mr. John Holt, Environmental Manager
Western Area Power Administration
Desert Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

Re: Review of DEIS for the San Luis Rio Colorado Project DOE/EIS-0395

Dear Mr. Holt:

The Arizona Department of Environmental Quality (ADEQ) has reviewed the U.S. Department of Energy's (DOE) *Draft Environmental Impact (DEIS) Statement for the San Luis Rio Colorado Project, DOE/EIS-0395* for a Presidential permit to construct, operate, maintain and connect a double-circuited 500,000 volt (500 kV) electric transmission line across the United States – Mexico international border. In addition, the DEIS addresses a separate request to interconnect the proposed transmission line to Western Area Power Administration's (WAPA) existing Gila Substation and continue on to the Arizona Public Service Company's North Gila Substation. The DOE is the lead federal agency for the action in cooperation with the U.S. Department of the Navy, U.S. Bureau of Reclamation, U.S. Bureau of Land Management, and the City of Yuma. ADEQ appreciates the opportunity to comment on those aspects of the project within the U.S.

Project Purpose

The Arizona Corporation Commission (ACC) identified the greater Yuma area as having insufficient local power generation and a constrained transmission system. The adjacent area of Mexico has been identified as having significant deficiencies in power, with the deficit growing at 7 percent annually. The applicants propose to develop and construct a power generation and transmission project that would serve these identified regional needs in both the United States and in Mexico.

The applications are from North Branch Resources, LLC and Generadora del Desierto S.A. de C.V, both wholly owned subsidiaries of North Branch Holding, LLC. The applicants propose that WAPA would construct, own, operate and maintain the 500-kV transmission components from the international border to the North Gila Substation.

Comments

The Water Quality Division of ADEQ is responsible for permitting and certification decisions for proposed discharges to surface waters of the United States, under the federal Clean Water Act and associated regulations and under the State aquifer protection program. From the text and

Northern Regional Office
1515 East Cedar Avenue • Suite F • Flagstaff, AZ
86004

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ
85701

9.1 → maps, it appears most of the drainages that may be affected by this project are ephemeral drainages which carry designated uses of aquatic and wildlife (ephemeral waters) and partial body contact. The project will cross the Gila River near County 10th Street. In this area, the Gila River is designated as a perennial watercourse with beneficial uses of aquatic and wildlife (warm water fishery), full body contact, fish consumption and agricultural uses. The designated uses affect permit requirements for various activities. ADEQ has reviewed the DEIS and finds it adequately identifies the potential impacts to water resources, water quality and soils. Below we have outlined the various permitting requirements in the event the project gains approval and moves to construction.

9.2 → Any point source discharge to a surface water of the U.S. requires an Arizona Pollution Discharge Elimination System (AZPDES) permit. The potential discharges anticipated during the course of the San Luis Rio Colorado Project include: 1) stormwater runoff from disturbed areas during transmission line construction (40 CFR 122.26(b)(15)) and 2) construction dewatering.

9.3 → 1. Stormwater discharges associated with construction activities (clearing, grading, or excavating) which disturb one acre or more must obtain coverage under the AZPDES Construction Stormwater General Permit (AZG2003-001). This project will disturb approximately 150 acres between transmission line structures and cable-pulling sites. The Construction Stormwater General Permit allows some provisional non-stormwater discharges, including water obtained from dewatering operations/foundations in preparation for and during excavation and construction. Please review Permit Part I.C.2 for further information on allowable non-stormwater discharges.

9.4 → From a cursory review of Figure S-1, it appears that portions of the project may be within ¼ mile of the Gila River from Coyote Wash to Fortuna Wash. This reach is listed as impaired under A.A.C. R18-11-601 – R18-11-606. Locations of impaired waters can be viewed by using the mapping feature at <http://az.gov/webapp/noi/>. Stormwater Pollution Prevention Plans (SWPPPs) for projects within a ¼ mile of an impaired must be submitted to ADEQ for review in advance of permit authorization. This review process begins with a 32 business day review and may be extended depending upon SWPPP deficiencies and required revisions. Please refer to the enclosed “Steps to Obtain Coverage” document for directions on how to file for permit coverage. The Construction Stormwater Permit, SWPPP checklist, and associated forms are available on ADEQ’s website at: <http://www.azdeq.gov/environ/water/permits/stormwater.html#const>.

9.5 → For questions on the Construction Stormwater program and permit coverage, please contact Sara Konrad at 602-771-4449 or by e-mail at SK2@azdeq.gov.

9.6 → 2. Construction dewatering is also permitted under the De Minimus General Permit (DGP No. AZG2004-001). This general permit offers coverage for certain types of discharges that pose a limited or insignificant (de minimus) threat to water quality when managed according to the terms of the permit. Applicants can obtain coverage by submitting a completed De Minimus Notice of Intent (NOI) to the Phoenix office for each proposed discharge location. If discharges

will reach the Gila River, the NOI(s) must be submitted at least 30 business days before the planned start of discharges, and a Best Management Practices (BMP) Plan must be submitted with the NOI(s), per DGP Part IV. D. The De Minimus General Permit, further information, and associated forms are available on ADEQ's website at:
<http://www.azdeq.gov/environ/water/permits/gen.html#demi>

9.9 → For questions on De Minimus General Permit coverage for this project, please contact Lavinia Wright at 602-771-4585 or by e-mail at LW4@azdeq.gov.

9.10 → 3. This project will require an Army Corps of Engineers (ACOE) Section 404 Permit. Section 404 is the dredge and fill program authorized under section 404 of the Clean Water Act (CWA). There are two types of 404 permits. Nationwide permits are general permits for specific types of activities such as utility line crossings but coverage under the nationwide permit program is limited to projects with disturbance in jurisdictional waters of less than ½ acre. At over 150 acres, it is likely this project will be reviewed in total and will require an individual permit.

9.11 → The CWA Section 401 requires the state provide a water quality certification to such permits. The ACOE will include the conditions of the CWA 401 certification as requirements of the Section 404 permit to ensure that the permitted activities will not result in a violation of the State's surface water quality standards. Such conditions may include: restrictions on vehicular access to stream crossings when flow is present and/or use of Best Management Practices to ensure water quality standards are being protected.

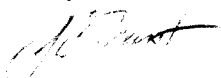
9.12 → For questions relating to CWA 401/404 program, please contact Bob Scalamera at 602-771-4502 or by e-mail at RS3@azdeq.gov.

9.13 → 4. Lastly, although the proposed generating facility is in Mexico, an action by the Federal Energy Regulatory Commission may require a State CWA 401 certification. Bob Scalamera

9.14 → would be the appropriate initial contact for that certification as well.

ADEQ appreciates the opportunity to review and comment on this project. When all the agencies work together, needed projects such as the San Luis Rio Colorado Project, can be permitted and constructed while still protecting the environment. This is especially important in a state like ours where water is such a precious and limited resource.

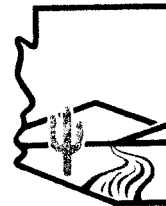
Sincerely,


Linda Taunt, Deputy Director
Water Quality Division

Enclosures

STEPS TO OBTAIN COVERAGE UNDER ADEQ'S GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION

ADEQ
Arizona Department
of Environmental Quality



1. Print and read the Construction General Permit (CGP). This general permit applies to every regulated construction project in Arizona (except those on Indian lands). Note that the CGP is a "general permit" that was developed to provide permit coverage for the thousands of various construction projects in Arizona. Thus, the permit requirements are the same for everyone subject to this permit. You can download the permit at <http://www.azdeq.gov/function/forms/appswater.html#cgp>. **Read the permit and keep a copy of the permit and related documents at the construction site.**
2. Develop a Stormwater Pollution Prevention Plan (SWPPP) for your project. Part IV of the CGP describes the requirements for developing and implementing a SWPPP. Although the SWPPP requirements listed in the CGP are the same for everyone, your SWPPP must be specific to your project (i.e. tailored to the specific types of construction activities for the project) and specific to your site (i.e. tailored to the specific conditions of the site). No specific format is required. However, the SWPPP must contain all of the information specified in Part IV of the CGP, including a copy of the CGP, the completed NOI application, and the Certificate authorizing permit coverage. To help ensure that the SWPPP contains all of the required elements, refer to the CGP during development of the SWPPP. The SWPPP requirements are also summarized in a SWPPP Checklist available at <http://www.azdeq.gov/function/forms/appswater.html#cgp>.

You are not required to submit your SWPPP to ADEQ in advance of permit authorization, unless your project, or a portion of your project, is within ¼ mile of a water body that has been designated as a "Unique Water" (A.A.C. R18-11-112) or an "Impaired Water" (A.A.C. R18-11-601 – R18-11-606). A map of unique and impaired waters is available at <https://az.gov/webapp/noi/map.do>.

Local jurisdictions may require you to submit a copy of the SWPPP to them for review. In any case, the SWPPP must always be kept at the construction site (in construction trailer or supervisor's truck) and be available for review as necessary.

3. Submit a complete Notice of Intent (NOI) application to ADEQ. The NOI application contains general information about your project and certifies that you will comply with the conditions of the CGP. The fastest way to obtain permit coverage is to submit a NOI electronically to ADEQ using the Smart NOI System at <http://az.gov/adeq/noi>.

If you use the Smart NOI system, the Certificate authorizing permit coverage is usually provided to you at the time of electronic submittal. The Authorization Certificate provides the project reference number (AZCON-XXXXXX) and a permit authorization (approval) date. You must be able to print the documents you complete during use of the Smart NOI system. By submitting the NOI to ADEQ electronically, you have the option of "e-signing" the NOI application, or mailing or faxing a signed copy to ADEQ within 10 days in order to retain the authorization for permit coverage. (Don't forget to print out a copy of these documents for your SWPPP and for posting requirements.)

If you prefer, the "paper" NOI application and instructions are available at <http://www.azdeq.gov/function/forms/appswater.html#cgp>. This document has been designed so that you can type directly into the form. Send the completed NOI application to ADEQ by fax

at (602) 771-4674 or by mail. ADEQ will reply with a Certificate authorizing permit coverage for the construction project.

Generally, ADEQ processes NOI applications on the same day they are received. You can check the status of your NOI application by searching the on-line construction database at <http://www.azdeq.gov/databases/azpdessearch.html>.

In a few cases, permit authorization may be delayed:

- a. If the NOI application is incomplete, ADEQ will send you a deficiency letter requiring revisions to the NOI application. Permit authorization will be delayed until all of the necessary information is received.
- b. If the project is located within ¼ mile of an impaired water or unique water, ADEQ will process your NOI application once your SWPPP is received. The NOI application will receive an initial approval date of 32 business days after the date ADEQ receives the SWPPP. ADEQ will review the project SWPPP and will notify you whether the SWPPP needs revisions.
- c. If the project is located within an area of concern to the U.S. Fish and Wildlife Service (USFWS), ADEQ will reply with information on contacting the USFWS and will delay permit authorization for approximately 32 business days while the NOI application is reviewed for water quality issues by both agencies.

Submit your NOI as soon as possible in case of unexpected delays in obtaining permit coverage for the project.

In addition to submitting the NOI to ADEQ, local jurisdictions may require you to provide them with a copy of the NOI and Authorization Certificate. Don't forget to keep a copy of the NOI and Certificate for your records and as part of the SWPPP.

4. Implement your SWPPP on your project site. Modify and update the SWPPP as necessary in accordance with the permit. Be prepared to provide a copy of the SWPPP to any inspector visiting your site. Post the required information about your project at the entrance of the site according to Part IV.J.2 of the CGP.
5. Submit a Notice of Termination form (NOT) to terminate permit coverage according to Part II.C of the CGP. A Construction Notice of Termination form may be obtained at <http://www.azdeq.gov/function/forms/appswater.html#cgp>. Complete the NOT form, and submit it to ADEQ by fax or mail. Upon receipt of the NOT form, ADEQ will provide you with an acknowledgement letter confirming the project termination.

Additional Program Information
Arizona Department of Environmental Quality
Surface Water Section/Stormwater NOI Processing Center
1110 W. Washington Street, Mailcode 5415A-1
Phoenix, AZ 85007
Contact: Shirley Conard
Tel: (602) 771-4632
Fax: (602) 771-4674
e-mail: sc4@azdeq.gov
Web site: www.azdeq.gov



Arizona Department of Transportation
Intermodal Transportation Division

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janet Napolitano
Governor

Victor M. Mendez
Director

January 8, 2007

Sam Elters
State Engineer

Comment Reference
Document 10

Mr. John Holt, Environmental Manager
Western Arizona Power Administration, Desert Southwest Region
P.O. Box 6457
Phoenix, Arizona 85005-6457

Re: San Luis Rio Colorado Project
Draft Environmental Impact Statement

Dear Mr. Holt,

The District office has reviewed the environmental impact statement and has the following comments.

- 10.1 → All encroachments within the state highway right of way shall require approval through ADOT's encroachment permit process. This includes aerial crossings of highways and appurtenances that are physically located within the right of way.
- 10.2 → The Area Service Highway (SR195) was designated by the Transportation Board as a controlled access facility. No authorization has been given to co-locate the proposed transmission line with the SR195 right of way.
- 10.3 → If you have any questions please call the office at (928) 317-2100.

Sincerely,

Paul V. Patane, P.E.
Yuma District Engineer



2001 Award Recipient

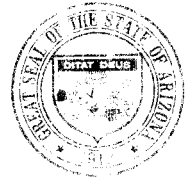


THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

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Yuma Office, 9140 E 28th Street, Yuma, AZ 85365-3596 (928) 342-0091

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DIRECTOR
DUANE L. SHROUFE
DEPUTY DIRECTOR
STEVE K. FERRELL



**Comment Reference
Document 11**

December 11, 2006

John Holt
Environmental Manager
Western Area Power Administration, Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

Re: Draft Environmental Impact Statement for the San Luis Rio Colorado Project

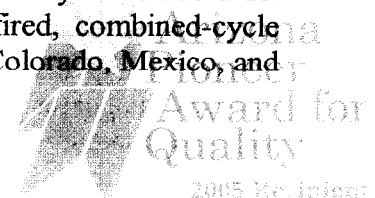
Dear Mr. Holt:

The Arizona Game and Fish Department (Department) personnel received your transmittal dated November 3, 2006, reviewed the accompanying Draft Environmental Impact Statement (DEIS) for the San Luis Rio Colorado Project (Project) dated October 2006, and attended the public meeting on December 7, 2006. Given the project description and our understanding of planned activities, we are providing the following comments for your consideration.

The Heritage Data Management System has been accessed through the Department's Environmental On-Line Tool and the results were provided to Mr. Tyler Rychener, a consultant with Greystone, in a letter dated March 3, 2006.

As we understand, this proposed project involves the construction, operation, and maintenance of a double-circuited 500-kilovolt electric transmission line across the United States-Mexico international border. The proposed transmission line would originate at the proposed San Luis Rio Colorado (SLRC) Power Center in Sonora, Mexico, interconnect with Western Area Power Administration's existing Gila Substation, and continue to Arizona Public Service Company's North Gila Substation. The transmission system total length within the United States (U.S.) would be approximately 26 miles; 21 miles from the international border to the Gila Substation and 5 miles from the Gila Substation to the North Gila Substation. Portions of the proposed transmission line would cross lands owned or managed by the U.S. Bureau of Reclamation, the U.S. Department of Navy, the State of Arizona, and private individuals and entities. The project would require modifying and expanding the Gila Substation and North Gila Substation. All of the activities within the U.S would take place within Yuma County, Arizona.

Associated activities in Mexico include a new SLRC Power Center proposed by Generadora del Desierto, S.A. de C.V. This new 550-megawatt nominal natural gas-fired, combined-cycle power plant would be located approximately 3 miles east of San Luis Rio Colorado, Mexico, and approximately 1 mile south of the international border.



John Holt
December 11, 2006
2

As described in the DEIS, the proposed activities will result in temporary and permanent disturbance of flat-tailed horned lizard (*Phrynosoma mcallii*) habitat through the placement of support structures, access roads, staging areas, and maintenance activities. This disturbance will occur within and outside of the Yuma Desert Management Area (Management Area) as depicted in the Flat-tailed Horned Lizard Rangelwide Management Strategy, 2003 Revision (Management Strategy). The DEIS lists mitigation measures to be implemented within Management Areas. Further, the Department recommends adhering to the Management Strategy's obligatory habitat compensation for the residual effects after a project proponent has performed all reasonable on-site mitigation measures. Compensation for habitat loss outside of a Management Area is charged at a 1:1 ratio, while the charged compensation ratio within a Management Area varies from 3:1 to 6:1, depending on multiplying factors (page 60 – 64 in the Management Strategy).

11.1 >

Finally, if this project involves work within any drainage, including the Gila River, we recommend contacting the U.S. Army Corps of Engineers, at the address provided below, regarding Clean Water Act issues that may apply to this project.

11.2 >

Ron Fowler
U.S. Army Corps of Engineers
Regulatory Branch
3636 N. Central Avenue, Suite 760
Phoenix, AZ 85012-1936
Phone: 602-640-5385

11.3 >

Thank you for the opportunity to review and comment on this proposal. If you have any questions about this letter, please contact me at (928) 341-4068.

Sincerely,



Troy G. Smith
Habitat Specialist II
Region IV, Yuma

TGS:tgs

cc: Larry Voyles, Regional Supervisor, Region IV
Rebecca Davidson, Supervisor, Project Evaluation Program
Rebecca Heick, Yuma Field Manager, Bureau of Land Management
Ron Fowler, Regulatory Branch, U.S. Army Corps of Engineers
Ron Pearce, Range Manager, Marine Corps Air Station
Peggy Haren, Water and Lands Group Lead, U.S. Bureau of Reclamation
Nancy Garcia, Rights-of-Way Administrator, Arizona State Land Department

Comment Reference
Document 12

In reply, please refer to
SHPO-2006-1257 (31253)
National Historic Preservation Act
general comments

December 4, 2006

John Holt, Environmental Manager
Western Area Power Administration (Western)
Post Office Box 6457
Phoenix, Arizona 6457

RE: Draft Environmental Impact Statement (DEIS) for the Proposed Transmission Line
Corridor for the San Luis Rio Colorado Project, Yuma County, Arizona

Dear Mr. Holt:

Thank you for including us in the planning process regarding the above-mentioned federal undertaking that entails construction of an overhead transmission line and related infrastructure located in the United States. We understand that your agency intends to use some of the documents prepared during the National Environmental Policy Act process to meet the requirements of Section 106 of the National Historic Preservation Act.

We understand that your agency intends to develop and use a programmatic agreement to substitute for all or part of the Section 106 process or to resolve adverse effects to a complex undertaking. We previously commented on a draft programmatic agreement on July 19, 2006. We look forward to reaching a Programmatic Agreement among consulting parties.

We note two logical inconsistencies in the DEIS regarding the evaluation and treatment of cultural resources in Arizona.

12.1 ↓

1) How can an impact analysis be conducted when identification efforts are described as incomplete or in progress? Page 200, Section 4.5.2 implies that an impact analysis was conducted and lists the criteria used, yet Page 118 states that "a previous records search has not yet been finalized," Page 119 lists the research that is currently being conducted, and Page 200 states that "consultation with Native American tribes may yield information on Traditional Cultural Properties." Given that traditional cultural properties may be entire landforms and in some instances the only mitigation maybe avoidance, the sooner such places are identified the better for planning this project.

12.2 ↓

2) Poor thinking is evident on Page 200 which states that "impacts to cultural properties that are determined to be not eligible under NRHP criteria are not considered to have an effect under NHPA or a significant effect under NEPA." The terms "cultural resources" and "historic properties" are not interchangeable in many cases, and even their entries in the glossary are different. Some cultural resources may be ineligible for inclusion in the National Register of Historic Places, but may be important under other cultural resources

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Governor

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Kingman

William Cordasco
Flagstaff

Janice Chilton
Payson

William C. Scalzo
Phoenix

Reese Woodling
Tucson

Elizabeth Stewart
Tempe

Mark Winkleman
State Land
Commissioner

Kenneth E. Travous
Executive Director

Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Tel & TTY: 602.542.4174
www.azstateparks.com

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(520 & 928) area codes

General Fax:
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Director's Office Fax:
602.542.4188

Letter to Western. 12/04/06, page 2
Draft Environmental Impact Statement (DEIS) for the Proposed Transmission Line Corridor for the San Luis Rio Colorado Project, Yuma County, Arizona

laws, such as the American Indian Religious Freedom Act, and any project-related impacts should be considered in the EIS.

We look forward to receiving the final agreement document and appreciate your agency's cooperation with this office in considering the impacts of federal undertakings on important cultural resources situated in Arizona pursuant to the National Historic Preservation

12.3 → Act. If you have any questions, please contact me at (602) 542-7137.

Sincerely,



Matthew H. Bilsbarrow, RPA
Planner/ Archaeologist
Arizona State Historic Preservation Office

cc. Mary Barger, Western

San Luis Rio Colorado Project Draft Environmental Impact Statement

Organization Comments

Associated Citrus Packers, Inc.
Cocopah Indian Tribe
Maricopa Audubon Society
North Gila Valley Irrigation and Drainage District
Quechan Indian Tribe
Sierra Club, Grand Canyon Chapter
Southwest Consortium of Environmental Research and Policy
Woodman Citrus Farms, LLC
Yuma Audubon Society
Yuma Mesa Irrigation and Drainage District
Yuma Irrigation District



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Mr. John Holt
Environmental Manager
Desert Southwest Region
Western Area Power Administration
P.O. Box 6457
Phoenix, AZ 85005
(Sent same date by facsimile)

January 9, 2007

Comment Reference
Document 13

Re: Comments on Draft Environmental Impact Statement (DEIS)
San Luis Rio Colorado Project DOE/EIS-0395

Dear Mr. Holt:

Our company owns agricultural property located on the southeast corner of County 14th Street and Avenue 5E.

13.1 → We are opposed to the Applicant Proposed Transmission Line Corridor as shown in Figure 2.3-3 (Proposed Project Area, Segment 2) of the DEIS (page 47) as this would place transmission lines and structures in close proximity to our property. This would preclude us from using aerial application for spraying our citrus grove, and would denigrate the value of our property for future development.

13.2 → If a transmission line is necessary in the area the "Route Alternative" would be more appropriate. This alternative should be placed on the east side of the proposed Area Service Highway (ASH) alignment.

Thank you for this opportunity to comment.

Sincerely,

Mark R. Spencer
Secretary/Treasurer

MRS/ms



THE COCOPAH INDIAN TRIBE

Cultural Resource Department
County 15th & Avenue G
Somerton, Arizona 85350
Telephone (928) 627-2102
Fax (928) 627-3173

Comment Reference
Document 14

H. Jill McCormick
Cocopah Tribe
County 15 & Avenue G
Somerton, AZ 85350

Mr. John Holt
Environmental Manager
Western Area Power Administration
Desert Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

Re: Comments on the Draft Environmental Impact Statement for the San Luis Rio Colorado Project

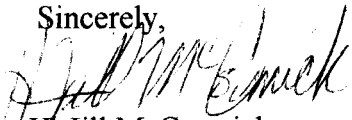
14.1 → The Cocopah Tribe would like to thank you for the opportunity to comment on the Draft EIS for the San Luis Rio Colorado Project. As you are aware the projected location of the future transmission line for this project lies within the traditional cultural area for the Cocopah Tribe. Therefore, construction of any kind in this region could be damaging to the cultural resources located within the surrounding landscape.

14.2 → Although the proposed transmission line has been changed to the smaller 230kV alternative it will still have a large impact on both natural and cultural resources. Along with the EIS, completion of the cultural resources survey is needed to determine the full impact to this area. Having said this, it is our feeling that we cannot make knowledgeable and meaningful comments on this project until the full scope of the project has been addressed. With the completion of the cultural resources survey we will have a more comprehensive picture of the impacts of the proposed transmission line and their relationship to the natural and cultural resources. With this information we can then fully address the future impacts within the context of the cultural landscape.

14.3 →

14.4 → If you have any questions or need additional information please feel free to contact the cultural resource department. We will be happy to assist you with any and all future concerns or questions. Again, thank you for your efforts in this matter and we look forward to working with you in the future.

Sincerely,



H. Jill McCormick

Cultural Resource Manager



Maricopa Audubon Society

4619 EAST ARCADIA LANE • PHOENIX, ARIZONA 85018

Dec. 10, 2006

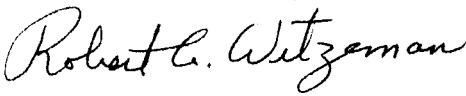
Mr. John Holt, Environment Manager
Western Area Power Administration
Desert Southwest Customer Service Region
PO Box 6457
Phoenix, AZ 85005

- 15.1 → On behalf of the 2300 members of the Maricopa Audubon Society here in central Arizona, we would like to state that we are concerned that the proposed San Luis Power Line and power plant in San Luis will increase air pollution in Yuma County and adjacent Mexico.
- 15.2 → We believe there is no guarantee the electricity will be used in Yuma County. Although the
- 15.3 → proponents say that it will meet US air quality standards, how can U.S. government agencies or U.S. courts enforce these in Mexico if the plant fails to meet these standards?
- 15.4 → Although the environmental impact statement examined several alternative routes for the power line, none of them avoid the Flat-tailed Horned Lizard Management Area on federal lands just north of the border with Mexico. In our chapter's view this is an unacceptable impact on the Flat-tailed Horned Lizard.
- 15.5 → Why set up special management areas for wildlife if they are going to be subjected to an ever-increasing number of incursions from power lines?
- 15.6 → Formerly high quality Flat-tailed Horned Lizard habitat has already been impacted by construction of the state prison, agricultural leases on Arizona State Trust Lands, roads, the Bureau of Reclamation sludge disposal site, and expansion of the Cities of San Luis and Yuma.
- 15.7 → The horned lizard already faces further threats from the proposed Area Service Highway and City of Yuma landfill site. We are greatly concerned that there would even be a "staging
- 15.8 → area" of 200 feet by 400 feet for parking and storing construction materials within the Flat-tailed Horned Lizard Management Area in order to build the power line.

15.9 → The right-of-way across the Flat-tailed Horned Lizard Management Area would be 150-200 feet, depending on whether a 230 kilovolt or 500 kilovolt transmission line is built.

Please keep us informed on events and documentation in this power line process.

Sincerely,

A handwritten signature in black ink that reads "Robert A. Witzeman". The signature is written in a cursive style with a prominent initial "R".

Robert A. Witzeman, M.D., Conservation Chairperson, 602 840-0052, witzeman@cox.net

NORTH GILA VALLEY IRRIGATION DISTRICT

1405 W. 16th Street, Yuma, Arizona 85364
(928) 343-9447 Fax: (928) 343-9483

January 10, 2007

John Holt, Environment Manager
Desert Southwest Customer Service Region
P. O. Box 6457
Phoenix, AZ 85005

Re: Western Area Power Administration – San Luis Rio Colorado Project

Dear Mr. Holt:

The North Gila Valley Irrigation and Drainage District Board of Directors objects to the approval, siting, and construction of the proposed 500kv electric transmission line from the United States border with Mexico north to the North Gila Substation. Part of the proposed transmission line will cross lands lying within the boundaries of, or proposed to be included within the North Gila Valley Irrigation and Drainage District.

The District's objections are:

- 16.1** → 1. **The proposed transmission line will have a negative impact on farming.**
- 16.2** → 2. **The generating plant is located in Mexico and there is no basis for U.S. Government support of a Mexican generation project.**
- 16.3** → 3. **The proposed generation facility is located in Mexico and there are no realistic benefits for the residents of Yuma County.**
- 16.4** → 4. **There is no benefit to the residents of Yuma County from the generation while the residents of Yuma County bear the burden of the transmission.**

16.1 → **1. The proposed transmission line will negatively impact farming in the North Gila Valley Irrigation and Drainage District.**

We request that the transmission line be moved east to the edge of the mountains. From the base of the mountains on the east it go north through the Dome Valley Narrows to the existing high voltage corridor. In addition, we request that the

16.1.1 →

John Holt, Environment Manager
January 10, 2007
Page two

16.1.2 → existing transmission lines between the Gila Substation and the North Gila Substation be underhung on the new transmission lines located near the base of the mountains.

16.1.3 → All power lines negatively impact land use. Power lines specifically impact farming because of the use of ground equipment and aircraft in farming operations.

16.1.4 → Power lines, whether high or low, are detrimental to farming. They must be flown over or worked under.

16.1.5 → Any lines located near canals can negatively impact maintenance operations of the irrigation district because of the need to use cranes in maintenance, repair, and replacement of District facilities.

16.2 → **2. Supporting Mexican generation of power is not a purpose for which resources of the United States should be applied nor the burden of transmission be placed on land owners in the United States.**

16.2.1 → We request that the proposed transmission project be withdrawn.

16.2.2 → There is no justification for providing the support to Mexican generation of power. The supply in the United States is adequate or can be built. The burden placed upon land users in the Yuma County area by this project is inappropriate.

16.3 → **3. There are no realistic benefits to Yuma County from the proposed project.**

16.3.1 → We request that the proposed project be withdrawn because there are no benefits to the area.

16.3.2 → There is no concrete commitment in the San Luis Rio Colorado Project to meet Yuma County area power needs. Some reference has been made to supplying power to users in Yuma County. However, there is nothing to show that there is any commitment on the part of the project to actually contract for a power supply into the Yuma County area.

John Holt, Environment Manager

January 10, 2007

Page three

16.3.3 → Regardless of this lack of commitment to provide any real benefit to the Yuma County area, the burdens of the transmission lines are placed squarely upon Yuma County area land users.

16.3.4 → We request that this project not be built, or, in the alternative, that the proposed transmission lines exiting the Gila Substation be relocated to the foot of the mountains on the east.

Thank you for your consideration.

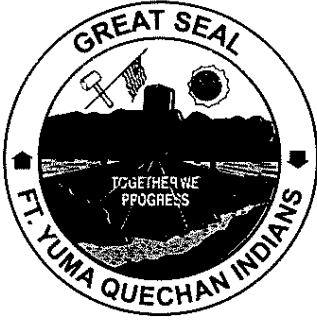
Very truly yours,



Frank W. Ferguson III

President

North Gila Valley Irrigation and Drainage District Board of Directors



QUECHAN INDIAN TRIBE

Ft. Yuma Indian Reservation

P.O. Box 1899
Yuma, Arizona 85366-1899
Phone (760) 572-0213
Fax (760) 572-2102

December 29, 2006

Western Area Power Administration
Desert Southwest Customer Service Region
Mr. John Holt
Po Box 6457
Phoenix, AZ 85005

Comment Reference
Document 17

Dear Mr. Holt,

Thank you for notifying us of the proposed San Luis Rio Colorado Project.

We have reviewed the draft EIS sent to us and have determined that there is a potential impact on cultural resources affiliated with the Quechan Indian Tribe. The following statements from the draft EIS were of great concern to both my office and the Quechan Cultural Committee:

- 17.1 → 1. Statement from draft EIS (pg 36): “All construction vehicle movement outside of the ROW normally would be restricted to pre-designated access, contractor acquired access, or public roads.”
 - a. Comment: How can this be assured? There have been other projects, not necessarily involving this Tribe, where contractors have taken short cuts and destroyed cultural resources located outside of the ROW and access roads.
- 17.2 → 2. Statement from draft EIS (pg 36): “Cultural resources would continue to be considered during”
 - a. Comment: It is our understanding that the survey has just now begun. When will we receive a copy of the cultural resources survey report?
- 17.3 → 3. Statement from draft EIS (pg 201): “Upon determination of the Preferred Route and prior construction, Western will conduct a Class III pedestrian survey of the route.....”
 - a. Comment: Are all routes indicated on page 43 going to be surveyed? What is the criteria for determining the best route for construction? If the survey is not being done until after the preferred route is chosen, how will we know if another route would cause less damage to cultural resources in the area?

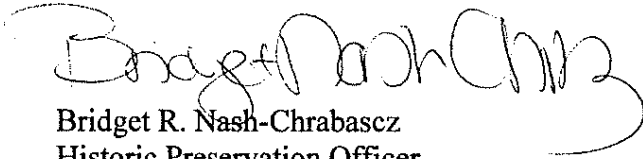
17.4

→ Due to the project crossing lands initially involved in the Wellton-Mohawk land transfer and the area being traditional lands for the Tribe, we would like to request further consultation and involvement in the project. There are known sites within this particular area that are of great concern for the tribe and we would like to be part of the drafting of the treatment plan.

17.5

→ Again, we thank you for your notification. If you need any further information or have any questions, please contact me at (760) 572-2423.

Sincerely,



Bridget R. Nash-Chrabasz
Historic Preservation Officer

Cc: Mark Wieringa



January 16, 2007

Comment Reference
Document 18

Mr. John Holt
Environment Manager
Western Area Power Administration
Desert Southwest Customer Service Region
PO Box 6457
Phoenix, AZ 85005
holt@wapa.gov

Dear Mr. Holt:

I am writing on behalf of the Sierra Club's Grand Canyon Chapter and our more than 13,000 members to express our concerns about the *San Luis Rio Colorado Project Draft Environmental Impact Statement* (DOE/EIS-0395).

- 18.1 → First of all, we are very concerned about how this project was noticed and the failure to engage a broad range of interests in something that is clearly significant. Second, we find that the Draft EIS is
- 18.2 → deficient in several areas and does not adequately address the significant, cumulative impacts of the project. These deficiencies include lack of information and underestimating the impacts of the several alternatives. The most serious deficiency, as outlined by Cary Meister in his comments for Yuma
- 18.3 → Audubon Society, is the absence of any attempt to mitigate and compensate for impacts to the Flat-tailed Horned Lizard and the failure to include an alternative that would avoid its habitat.
- 18.4 → We incorporate by reference the comments of the Yuma Audubon Society and ask that you consider those comments and adopt the No Action Alternative. Furthermore, we ask that you extend the
- 18.5 → comment deadline on this important proposal so the larger public can adequately and review and comment on it.

Thank you for considering our comments.

Sincerely,
Sandy Bahr
Conservation Outreach Director
Sierra Club – Grand Canyon Chapter



Mr. John Holt, Environmental Manager
Western Area Power Administration, Desert Southwest Region
P.O. Box 6457
Phoenix, AZ 85005-6457

Comment Reference
Document 19

RE: DOE/EIS-0395

Mr. Holt:

The Southwest Consortium for Environmental Research and Policy (SCERP) is taking this opportunity to comment on the Draft Environmental Impact Statement for the San Luis Rio Colorado Project, DOE/EIS-0395.

19.1 → We are pleased to hear that the Department of Energy (DOE) “evaluated [the] impacts within the United States” of the proposed SLRC Power Center. However, after the experience where DOE witnessed being sued for failing to conduct a Transboundary Environmental Impact Assessment (TEIA) for the Mexicali / InterGen project (which was a similar project to the SLRC Power Center), SCERP is perplexed and confounded as to why the DOE has chosen not to conduct a TEIA for the SLRC Power Center, which would detail the environmental impacts that the project will have in Mexico.

We thank you for your consideration.

D. Rick Van Schoik

Woodman Citrus Farms LLC
16688 South Avenue 5E
Yuma AZ 85365

Comment Reference
Document 20

Mr. John Holt
Environmental Manager
Desert Southwest Region
Western Area Power Administration
P.O. Box 6457 Phoenix AZ 85005

(Sent via FAX 1/09/07)

Re: Comments on Draft Environment Impact Statement (DEIS)
San Luis Rio Colorado Project DOE/EIS-0395

Dear Mr. Holt,

Our family and company own agricultural property along the proposed transmission line on Yuma Mesa.

20.1

We are opposed to the Applicant Proposed Transmission Line Corridor as shown in Figure 2.3-3. This transmission line and structures next to and close to our properties would preclude us from using aerial spraying of our commercial citrus groves. These lines would also impact adversely our properties for future development.

20.2

The "Route Alternative" would be more appropriate and have less impact on private property. This alternative route should be on the east side of the proposed (ASH) Area Service Highway.

Thank You



Robert R. Woodman
Woodman Citrus Farms LLC



YUMA AUDUBON SOCIETY
P.O. BOX 6395
YUMA, ARIZONA 85366-6395

January 14, 2007

Mr. John Holt
Environment Manager
Western Area Power Administration
Desert Southwest Customer Service Region
PO Box 6457
Phoenix, AZ 85005
holt@wapa.gov

Dear Mr. Holt:

The Yuma Audubon Society submits the following comments on the *San Luis Rio Colorado Project Draft Environmental Impact Statement* (DOE/EIS-0395), hereinafter referred to as the "DEIS".

21.1 → Overall, we find that the EIS is deficient in several areas, as enumerated below, preventing an assessment of true impacts to the environment. These deficiencies include lack of information and underestimating the impacts of the several alternatives. The most egregious deficiency is the absence of any attempt to mitigate and compensate for certain admitted impacts to the Flat-tailed Horned Lizard and a lack of an alternative that would avoid its habitat.

Analysis of Biological Resources and Impacts on Them by the Various Alternatives Considered Is Inadequate and Incomplete

21.2 → On page 101 of the DEIS, reference is made to Appendix B of the DEIS. This is typical of the inadequate assessment of biological resources in the project area. Appendix B is a list of species observed during a single-day visit to somewhere in the project area in March 2006 (Table 3). The small number of species observed shows that this is a totally inadequate representation of species present in the area. Only eight species of birds are reported. Invertebrates, reptiles, amphibians, and fish are completely absent from the list. On the other hand, the list of "Common Species Occurring in Sonoran Desertscrub and Riparian Scrublands" (Table 2) is much too broad in its scope. Many of these species may be common in the Sonoran Desert in general, but not the project area. Javelina, Pyrrhuloxia, Elf Owl, Curve-billed Thrasher, and Arizona Coral Snake are not common in the project area. Two of the

quail species listed don't even occur in the Sonoran Desert in the Arizona, except by introduction or escape: California Quail and Elegant Quail.

- 21.3 → In the section on environmental consequences (Chapter 4, pp. 192-193), other than two special status species of invertebrates, other invertebrate species are totally ignored, yet they are an important part of the ecosystem. Similarly, on page 186 of the DEIS, mention of the necessity to do surveys to identify the presence of special status plant species indicates that the project area has not been surveyed and thus
- 21.4 → which plant species are present in the project area is not known, precluding a meaningful assessment of the effects of any of the actions considered in the DEIS.

- 21.5 → Even the above cursory summary of the description and analysis of impacts on biological resources indicates that sufficient information is not included in the DEIS to adequately assess impacts to these resources. A more detailed analysis of the DEIS would only reveal even more deficiencies and errors in the scarce information presented. For this reason, the DEIS must be rejected unless more detailed information can be provided in order to adequately assess impacts to biological resources. From reading the DEIS, we can only come to the conclusion that the authors of this DEIS don't really know which plant and animal species are in the project area and which aren't.

- 21.6 → The DEIS admits on p. 184 that "Operation of the transmission line could pose a mortality risk to birds from collisions with the conductors and overhead ground wires, especially at the Gila River crossing." The DEIS also mentions that Great Egrets and Snowy Egrets, which are State of Arizona Wildlife of Special Concern species, are at risk for collisions (p. 188). However, once again analysis of the effects of the proposed and alternative actions are insufficiently analyzed. The number of potential bird-transmission line collisions should be estimated, as it was in the Kofa National Wildlife Refuge Draft Compatibility Determination for Southern California Edison's proposed Devers-Palo Verde #2 transmission line (Kofa National Wildlife Refuge 2006:8).

The DEIS also mentions at pp. 218-219 as a mitigating factor on visual resources that

The proposed steel structures would be galvanized to prevent rusting, and over time they would oxidize and the reflectance (shine) would be reduced. . . . Conductors and ground wires used would not be dulled to reduce reflectance to minimize bird collisions with wires. However, the structures, conductors, and ground wires would all dull somewhat over time.

- 21.7 → However, the DEIS doesn't assess whether the number of bird collisions with transmission structures (towers, conductors, ground wires) would increase over time as the surfaces grow duller and what the magnitude of this increase would be. This is a deficiency in the analysis of bird collisions.

21.1 → Introduction of invasive plants species into the project area as a result of construction and maintenance activities is assessed briefly at p. 180 of the DEIS. Is there any evidence to indicate that the methods of controlling introduction of noxious plant species mentioned in the DEIS actually work?

21.1 → The DEIS overall seems to assume that animals displaced by the proposed and other alternatives can easily relocate to adjacent areas, whether relocation is with or without human assistance. This issue is covered in more detail below in relation to the Flat-tailed Horned Lizard. However, the assumption that adjacent areas can support relocated animal species is unwarranted for all animal species. At the least, whether relocated individuals of a species will survive is dependent on the availability of *suitable* adjacent habitat, home range size, and population density of the relocated and other species. In other words, how do you know that relocated individuals will survive? Given the limited data and analysis in the DEIS, we don't think that this can be assumed. If the individuals don't survive relocation, "mitigation" through relocation is no better than killing the animals in their existing habitat.

Analysis of Effects of the Various Alternatives on the Flat-tailed Horned Lizard Is Inadequate and Insufficient Mitigation and Compensation Are Proposed for Known Adverse Impacts

21.10 → One of the deficiencies of this DEIS is that it doesn't consider, for full analysis, an alternative that would avoid Flat-tailed Horned Lizard habitat. According to "NEPA's Forty Most Asked Questions (46 FR 18026; Executive Office of the President 1981):

2a. Alternatives Outside the Capability of Applicant or Jurisdiction of Agency. If an EIS is prepared in connection with an application for a permit or other federal approval, must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant or can it be limited to reasonable alternatives that can be carried out by the applicant?

A. Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. *Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.* [my emphasis]

It would thus be reasonable for WAPA to include an alternative designed to avoid Flat-tailed Horned Lizard habitat. Given the importance of the Flat-tailed Horned Lizard (designated habitat for its intended protection, the Rangeland Management Strategy [Flat-tailed Horned Lizard Interagency Coordinating Committee 2003]), such an alternative should be carried forward for full analysis. Instead, WAPA has provided only a sketchy alternative, without a map, that might avoid some Flat-tailed Horned Lizard habitat (the "West Corridor" alternative, DEIS, p. 67). While the

Proposed Alternative (the “Route Alternative”) may affect less Flat-tailed Horned Lizard habitat, it fails to avoid the critical habitat of the Flat-tailed Horned Lizard Management Area. We urge WAPA to include an alternative for full analysis which would avoid Flat-tailed Horned Lizard habitat, in particular the Flat-tailed Horned Lizard Management Area.

21.11 → For the alternatives that were carried forward for further analysis, the DEIS foresees some significant impacts (pp. 190, 196). These include loss of habitat to transmission towers and roads, deaths from vehicle contact during construction and maintenance, and increased predation from American Kestrels and Common Ravens. The lizards might also be attracted to roads because of watering for dust suppression and be run over by vehicles (DEIS, pp. 195-196). A staging area for construction would be located *within* the Flat-tailed Horned Lizard Management Area (DEIS, p. 25). Disturbed soil would also be deposited within the Flat-tailed Horned Lizard Management Area (DEIS, p. 163).

21.12 → WAPA’s “mitigation” for these impacts seems to consist solely of removing Flat-tailed Horned Lizards from harm’s way during construction, and only within the Flat-tailed Horned Lizard Management Area (DEIS, 37-38). What if Flat-tailed Horned Lizards are encountered outside the Flat-tailed Horned Lizard Management Area? There is no evidence that impacts to Flat-tailed Horned Lizards outside the Management Area were considered (DEIS, pp. 196-197, 204-205). This is another deficiency of the environmental analysis of this DEIS.

21.13 → There are also problems with the proposed “mitigation” for the Flat-tailed Horned Lizard within the Management Area. Relocation only addresses part of the problem of impacts on Flat-tailed Horned Lizards, and results in its own further problems. While removing the Flat-tailed Horned Lizards that are noticed during construction might prevent their death within the staging area, what will happen to the lizards in their new habitat, where they have been relocated? How do you know that they will survive? The DEIS itself argues against the success of relocation as a mitigation technique at page 184: “Displaced animals can be stressed because adjacent habitats are fully occupied and cannot readily accommodate increased population densities.” Do you know the population densities of habitat adjacent to areas that would be disturbed? Unless you know that the Flat-tailed Horned Lizard (and other displaced species) will survive, they are very likely being condemned to mortality just as surely as if they remained within the disturbed area.

21.14 → There is also no analysis of the effects of the Proposed Action and other alternatives on the food sources of the Flat-tailed Horned Lizard. This is another deficiency of the analysis.

21.15 → While the DEIS (p. 265) mentions “Effects of long-term occupancy by the proposed transmission line include negative effects of encounters between humans and wildlife, such as mortality from maintenance vehicles . . .” the DEIS ignores how the transmission line will attract more vehicular travel along its route, including through the Flat-tailed Horned Lizard Management Area. Besides a new access road, the towers will serve as reference points for persons traveling through the area in

vehicles, whether they are attracted to them or want to avoid them. This Management Area is adjacent to the border with Mexico and creation of new road will only encourage illegal vehicular crossing of the United States-Mexico boundary. The effects of long-term occupancy are not confined to maintenance vehicles and analysis in the DEIS must be broadened to include all vehicular traffic through the area. The effect of unintended vehicular travel through the Management Area is nowhere assessed in the DEIS, and this is another serious deficiency that needs to be remedied. The DEIS similarly excludes any analysis of the already existing cross-border and Border Patrol vehicular traffic on the Flat-tailed Horned Lizard Management Area and the lizard itself as part of the cumulative analysis section (DEIS, pp. 256-260). Just because this traffic hard to study or document doesn't excuse WAPA from analyzing its impacts, both current, cumulative, and future, the latter especially as a result of creating new road access.

21.15
cont'd

One of the most serious faults of this DEIS is the statement (p. 199) that "There would be no significant adverse impacts to special status species; therefore, no additional mitigation is considered necessary or proposed." The DEIS does state at p. 265 that "Although the alternatives do not require a major amount of land to be taken out of production, losses of terrestrial plants, animals, and habitats from natural productivity to accommodate the proposed facilities and temporary disturbances from construction are possible." Such losses are not only possible, they are certain! The Flat-tailed Horned Lizard will lose habitat to transmission towers and access roads, within an area that has been set aside for its protection, the Flat-tailed Horned Lizard Management Area. Not only that, there is no proposed habitat restoration plan even for the areas that WAPA admits will be impacted (DEIS, p. 191), so there is no way to assess whether that mitigation will be sufficient for some of the losses incurred. The habitat restoration plan needs to be available for public comment as part of the DEIS process and should be appended to the document.

21.16

One of the most egregious omissions from the DEIS is ignoring the requirement to compensate for habitat loss within a Flat-tailed Horned Lizard Management Area. This is required under Appendix 6 of the *Flat-tailed Horned Lizard Rangewide Management Strategy, 2003 Revision* (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003:102): ". . . mitigation *and compensation* [my emphasis] are automatically required on MAs [Management Areas] . . ." In addition, because the Proposed Action and other alternatives would eliminate Flat-tailed Horned Lizard habitat within a Management Area, compensation must be three to six times the amount of habitat lost, depending on four factors which are input into the multiplier (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003:63-64). Moreover, the compensation for habitat lost would also be subject to further factors which increase the amount of compensation, primarily the indirect effects of transmission towers which attract avian predators of Flat-tailed Horned Lizard, roads which attract ground squirrels that prey on Flat-tailed Horned Lizards, invasive weeds that degrade lizard habitat, and "vehicles from increased authorized and *unauthorized* [my emphasis] traffic on maintenance roads." (Flat-tailed Horned Lizard Interagency Coordinating Committee 2003:64).

21.17

This being said, we still oppose routing the transmission line across the Flat-tailed Horned Lizard Management Area, but if the project proceeds despite our objections, there should at least be an appropriate level of compensation for lost habitat.

Analysis of Air Quality Impacts Uses Insufficient Data and Inappropriate Models

21.18 → Blank spaces (actually dashes) in Table 3.3-3, Ambient Air Quality Standards, show insufficient baseline data to assess some impacts on air quality (DEIS, p. 91). This includes PM_{2.5}, which has increasingly been recognized as a health hazard. Since part of Yuma County already is a non-attainment area for PM₁₀, it is critical that a baseline be established for PM_{2.5}. The DEIS (p. 256) states that “No significant cumulative impacts are expected to air quality in the Proposed Project area.” Yet the DEIS fails to quantify the potential cumulative impacts from proposed Arizona Public Service power plants, the proposed gasoline refinery, a proposed ethanol plant, the Area Service Highway, the port of entry, and general commercial and residential development in the Yuma area. Cumulative impacts on air quality would come not just from construction activities and would extend beyond just dust (particulates), which nevertheless are a significant health concern. The DEIS (p. 175) lacks any information on hazardous air pollutants (HAPs). A baseline and cumulative effects for HAPs need to be included in the DEIS in order to adequately assess impacts on air quality.

21.19 → Inappropriate use of dispersion modeling occurs because the data for both surface and upper air are not from Yuma County. The surface data used for modeling are from Phoenix (DEIS, p. 173). Are there no surface air data available for Yuma? Similarly, upper air data used in the dispersion model were taken from Tucson. The topography of Tucson is quite different from Yuma and we question the adequacy of using data from other locations to model surface and upper air dispersion for the proposed project area.

21.20 → The DEIS states (p. 2) that “GDD would construct the SLRC Power Center to comply with applicable U.S. environmental standards.” Will there be any monitoring to ensure that these standards are being met? If they are not, they could not be enforced because the United States government can’t enforce its standards in Mexico, and U.S. standards could thus be exceeded with impunity. How do the environmental standards of Mexico’s Instituto Nacional de Ecología compare with those of the United States?

Analysis of Visual Resource Impacts Has Too Few Viewpoints and They Are Not Well-Chosen

21.21 → Only three key observation points were chosen (DEIS, Figure 3.8-1, p. 133) and they are all in the northernmost portion of the proposed route. Yet they are not well-chosen in order to assess visual impacts of the transmission line. Many people drive from Yuma to San Luis along County 23rd and Avenue 3E, yet no key observation

21.21
cont'd

points were chosen along this segment of the route. Segment 1 of the route is the least modified by human activities, yet this segment contains no key observation points. The number of people driving within Segment 1 of the proposed project contradicts the statement at p. 219 in the DEIS that “Because there is little use of this area aside from Border Patrol monitoring, the visual impact will be less than significant.” In fact, thousands of people will notice the visual impact of the transmission line in Segment 1. As noted on p. 218 of the DEIS, sensitivity of existing visual resources is measured by 1) the degree of alteration of the landscape from its natural condition (Segment 1 is the least modified segment), 2) the number of people within visual range, including highway travelers, and 3) degree of public or agency concern (this letter expresses concern).

21.22

Similarly, the DEIS underestimates impacts to visual resources at Redondo Pond and the nearby residential area of Yuma Lakes. This residential and recreation area was not chosen as a key observation point, yet one of the criteria for sensitivity of visual resources is the number of people within visual range, including residents and people involved in recreation (DEIS, p. 218). By contrast, the Final EIS for the Devers-Palo Verde 2 transmission line rejects two route alternatives in part because of visual impacts in a residential and recreational area: “. . . where the route would cross Highway 95 and the La Posa Plains, the alternative would impact views from residences and recreationists using the La Posa Recreation Site and Long-Term Visitor Area.” (California Public Utility Commission and U.S. Bureau of Land Management 2006:C-24, C-26).

21.23

Of the key observation points that were chosen, Key Observation Point 2, was a poor choice to show impacts of the transmission line. The area is already cluttered with power poles and the palm trees with their fronds bound into a vertical position lend a further industrial effect to the landscape. It looks like an electric substation or oil field even before the addition of the simulated transmission line. A much better and significant key observation point could have been chosen.

21.24

We also feel that the Flat-tailed Horned Lizard Management Area should be put in VRM Class II instead of Class III. The Management Area is a protected area for an animal species and the goal should be to prevent further deterioration of the environment in the demarcated area, including the visual environment (“retain existing elements of a landscape,” DEIS, p. 137), which is VRM Class II. Class III allows moderate changes in the existing landscape and is inappropriate for the Flat-tailed Horned Lizard Management Area.

21.25

All of the above have led to an erroneous conclusion in the DEIS (p. 259) that “No significant impacts to visual resources are expected as a result of the Proposed Project.”

Information Provided to Evaluate Cultural Resources Impacts Is Insufficient

21.26

The DEIS admits, at p. 258, that “Cumulative impacts to cultural resources, such as prehistoric properties, historic properties, and cultural landscapes, cannot be determined until a 100-percent Class III survey is completed.” The DEIS also states (p. 201) that “. . . specific potential impacts have yet to be identified” Similarly,

the DEIS states that unavoidable adverse impacts (p. 262), irreversible and irretrievable commitments (p. 263), and use, productivity, and resource commitment (p. 265) to cultural resources cannot be determined until a one hundred percent Class III survey is undertaken. In other words, we don't really know what the impact of the proposed project will be on cultural resources. This leads essentially to a position of "trust us." Unfortunately, "trust us" is not an adequate environmental impact analysis to cultural resources. Class III surveys should have been already completed and the findings included as part of the DEIS. Since this was not done, there is not a sufficient basis for assessing impacts of the proposed project on cultural resources, and the DEIS cannot be used to make a decision on either the various alternatives or what the proposed project should be.

21.26
cont'd

Several Safety Issues Are Not Addressed in the DEIS

Although the DEIS assesses the effect of transmission line interference on the AM and FM broadcast bands, what about effects on other parts of the frequency spectrum? The draft compatibility determination for the Southern California Edison Devers-Palo Verde No. 2 transmission line from the Kofa Refuge (Kofa National Wildlife Refuge 2006:7) mentions interference problems with two-way radio communications near the existing Southern California Edison transmission line on the refuge and also expresses concern about potential interference with radio telemetry equipment.

21.27

One of the potential impacts not evaluated by the DEIS is transmission line towers being blown over by intense weather conditions. This actually happened to a Southern California Edison tower on the Devers-Palo Verde No. 1 line in July, 2006 (Bowles 2006). The likelihood and effects of this kind of event should be assessed in the DEIS.

21.28

The Purpose and Need for the Proposed Project Is Unproven

We question the need for a power plant in San Luis, Mexico and the associated transmission line which would cross from Mexico into the United States. Arizona Public Service appears to be addressing potential electric power needs in the Yuma area through both proposed transmission lines and power plants (DEIS, 67, 256). The Wellton-Mohawk Irrigation and Drainage District has also proposed building a power plant east of Yuma. There is no guarantee that the electricity from the San Luis power plant would be sold in the Yuma area. The location of the power plant south of the Flat-tailed Horned Lizard Management Area and the consequent desire to cross the Management Area with a transmission line indicate that the San Luis location is just not a good one for a power plant and should not be built.

21.29

The Environmental Justice Analysis Uses Inappropriate and Misleading Comparisons in Evaluating Impacts

The environmental justice analysis in the DEIS essentially compares the census tracts that would be impacted by the proposed project with Yuma County as a whole and comes to the conclusion that the census tracts aren't significantly different from

21.30 → Yuma County as a whole and thus there are no significant environmental justice impacts (DEIS, 238). However, the true comparison should be between Mexico, specifically San Luis Río Colorado, Sonora, and Yuma County and the proposed project area census tracts. We have seen an increasing trend to export power plants to Mexico and then build transmission lines into the United States. This has been done from Mexicali, Baja California to the Imperial Valley in California. Power plants in Mexico are not required to meet the same standards as those in the United States and provide a means to avoid permitting processes required in the United States by both federal and state government agencies. The pollution impacts are exported to Mexico, where there exists a lower average income than in the United States or Yuma County. Thus there is a significant effect on a lower-income population by building the power plant in Mexico (specifically San Luis Río Colorado, Sonora) rather than the United States (specifically, Yuma County and the proposed project census tracts).

Observations and Corrections

21.31 → The alternatives eliminated from detailed study (DEIS, p. 67) should be shown on a map in order to provide more clarity.

21.32 → The maps showing land ownership (DEIS, pp. 120-122) are difficult to decipher. It is difficult to match the colors in the legend with the colors on the maps.

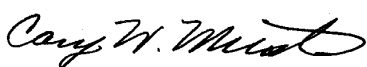
21.33 → There are two “rainy” seasons in the proposed project area: the summer one mentioned in the DEIS (p. 85, 167) and a winter one from October through March, a rain shadow version of the winter rainy season in southern California.

21.34 → Not all citations in the text are included in the References (DEIS, pp. 275-288). This is not an exhaustive list, but I noticed that the following citations need references: Wilson 2000 (p. 77), Reclamation 1976 (p. 81), USACE 2001 (p. 83), Steams et al. 1985 (p. 83), BECC 2004 (p. 84), and Peterson 2006 (p. 252).

21.35 → And in relation to the early history of the Yuma area and lower Colorado River, when Hernando de Alarcón is mentioned (DEIS, p. 113), how could you forget poor Melchior Díaz, who was supposed to meet with Alarcón, but missed him, and then on the way back to what is now Sonora, fatally impaled himself with the spear that he used to frighten a dog that was bothering some sheep?

Thank you for the opportunity to comment on this proposal. Given the above comments, we can only recommend adoption of the No Action Alternative as the Environmentally Preferred Alternative.

Sincerely,



Cary W. Meister
Conservation Chair

References

Bowles, Jennifer. *Transmission Tower Felled by Wind*. The Press-Enterprise, July 7, 2006. (Accessed January 13, 2007 at http://www.pe.com/localnews/inland/stories/PE_News_Local_D_tower07.1fe3403.html.)

California Public Utilities Commission and U.S. Bureau of Land Management 2006. *Final Environmental Impact Report/Environmental Impact Statement: Southern California Edison Company's Application for Devers-Palo Verde No. 2 Transmission Line Project*. N.p.

Executive Office of the President 1981. *Memorandum to Agencies: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*. (Accessed January 13, 2007 at <http://www.nepa.gov/nepa/regs/40/40p1.htm>.)

Flat-tailed Horned Lizard Interagency Coordinating Committee 2003. *Flat-tailed Horned Lizard Rangewide Management Strategy, 2003 Revision*. N.p.

Kofa National Wildlife Refuge 2006. *Compatibility Determination: Public Utility Right of Way for Southern California Edison (SCE) to Provide for the Installation and Maintenance of a 500-Kilovolt Electric Transmission Line, Devers-Palo Verde #2 (DPV #2) across Approximately 24 Miles of Kofa National Wildlife Refuge (Refuge), a Unit of the National Wildlife Refuge System (System) in Southwestern Arizona*. Yuma, Arizona: Kofa National Wildlife Refuge. (Accessed January 13, 2007 at <http://www.fws.gov/southwest/refuges/arizona/KofaCompatibilityDeterminationRev1.pdf>.)

YUMA MESA IRRIGATION AND DRAINAGE DISTRICT

COUNTY 14½ AND 4TH AVENUE • 14329 SO. 4TH AVENUE EXT.

YUMA, ARIZONA 85365

(928) 726-4353 • FAX (928) 726-9618

BOARD OF DIRECTORS
ELDON PAULSEN, PRESIDENT
JAMES WEDDLE
BRUCE EASTERDAY

N.W. "BILL" PLUMMER
MANAGER-SECRETARY
A. JAMES CLARK
ATTORNEY
(928) 783-6233

January 10, 2007

Comment Reference
Document 22

Mr. John Holt
Environmental Manager
Desert Southwest Region
Western Area Power Administration
P.O. Box 6457
Phoenix, AZ 85005

(Also transmitted by fax to 602-605-2630)

Re: Comments on Draft Environmental Impact Statement (DEIS)
San Luis Rio Colorado, Project DOE/EIS-0395

Dear Mr. Holt:

The Yuma Mesa Irrigation and Drainage District appreciates the opportunity to comment on the subject DEIS and appreciates the time extension you provided for the District and others to comment.

The District has been following this project, as well as a number of others, all of which have the potential to adversely affect District operation and maintenance activities and the landowners within the District.

22.1 → The District is adamantly opposed to the Applicant's Proposed Transmission Corridor between County 15-1/2 and County 12-1/2 because a portion of that route would adversely affect irrigation operations. The District would have no objection to the location of the Route Alternative provided the transmission lines are sited along the south side of the A Canal and on the east side of the ASH. By locating the transmission line on the east side of the ASH and the south side of the A Canal any interference with District operations and maintenance would be minimized.

22.2 →

22.3 →

22.4 → The District would be very concerned if the transmission lines, either 230KV or 500KV, either are too close to the A Canal or cross over the A Canal because of possible interference with District maintenance where cranes are used to enable the performance of maintenance on large gate structures. The only exception to the location of the transmission line along the south side of the A Canal or any crossovers would be from approximately Avenue 8E to the Gila Substation. For that segment there a number of structures such as the I-8 interchange which need to be considered by the designers.

22.5 →

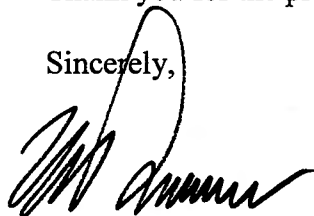
The location of the lines at the intersection of the A Canal and I-8 and the continuation of the lines over or adjacent to the District's pumping plant east of Avenue 9E and adjacent to the Gila Substation would need to be coordinated very closely with the District because of the potential to interfere with maintenance of the A Canal and the pumping plant. In addition, of concern to the District is the possibility of interference from the high voltage transmission lines with the District's communication system between the pumping plant and the District Office.

22.6 →

As an additional comment, the District is aware of the proliferation of distribution and transmission lines along and near the proposed 500KV lines. The District strongly urges the electric power entities to work together to combine as many of the transmission lines as possible into the higher voltage lines to reduce or eliminate the numbers of lines.

Thank you for the providing the opportunity for the District to comment on the DEIS.

Sincerely,



N. W. Plummer
Manager

YUMA IRRIGATION DISTRICT

9510 Avenue 7 E, Yuma, Arizona 85365

(928) 726-1047 Fax: (928) 726-1048

January 10, 2007

John Holt, Environment Manager
Desert Southwest Customer Service Region
P. O. Box 6457
Phoenix, AZ 85005

Re: **Western Area Power Administration – San Luis Rio Colorado Project**

Dear Mr. Holt:

The Yuma Irrigation District Board of Directors objects to the approval, siting, and construction of the proposed 500kv electric transmission line from the United States border with Mexico north to the North Gila Substation. Part of the proposed transmission line will cross lands lying within the boundaries of Yuma Irrigation District.

The District's objections are:

- 23.1** → 1. **The generating plant is located in Mexico and there is no basis for U.S. Government support of a Mexican generation project.**
- 23.2** → 2. **The proposed generation facility is located in Mexico and there are no realistic benefits for the residents of Yuma County.**
- 23.3** → 3. **The proposed transmission line will have a negative impact on farming.**

23.1 → 1. **Supporting Mexican generation of power is not a purpose for which resources of the United States should be applied nor the burden of transmission be placed on land owners in the United States.**

23.1.1 → We request that the proposed transmission project be withdrawn.

John Holt, Environment Manager
January 10, 2007
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23.1.2 → There is no justification for providing the support to Mexican generation of power.

23.1.3 → The supply in the United States is adequate or can be built. The burden placed upon land users in the Yuma County area by this project is inappropriate.

23.2 → **2. There are no realistic benefits to Yuma County from the proposed project.**

23.2.1 → We request that the proposed project be withdrawn because there are no benefits to the area.

23.2.2 → There is no concrete commitment in the San Luis Rio Colorado Project to meet Yuma County area power needs. Some reference has been made to supplying power to users in Yuma County. However, there is nothing to show that there is any commitment on the part of the project to actually contract for a power supply into the Yuma County area.

23.2.3 → Regardless of this lack of commitment to provide any real benefit to the Yuma County area, the burdens of the transmission lines are placed squarely upon Yuma County area land users.

23.3 → **3. The proposed transmission line will negatively impact farming in the Yuma Irrigation District.**

23.3.1 → All power lines negatively impact land use. Power lines specifically impact farming because of the use of ground equipment and aircraft in farming operations.

23.3.2 → Power lines, whether high or low, are detrimental to farming. They must be flown over or worked under.

23.3.3 → Any lines located near canals can negatively impact maintenance operations of the irrigation district because of the need to use cranes in maintenance, repair, and replacement of District facilities.

John Holt, Environment Manager
January 10, 2007
Page two

We request that this project not be built.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Wade Noble", enclosed within a large, loopy oval scribble.

Wade Noble
General Counsel
Yuma Irrigation District

San Luis Rio Colorado Project Draft Environmental Impact Statement

Public Comments

Comments Recorded at the Public Hearing

Jim Babb	Betty Oppenheimer
Max Bardo	Sam Oppenheimer
Sherman Grubb	Paul Rachels
Paul Kochis	Cary Meister
Betty Mason	Jim Brown
Charles Saltzer	Bonnie Chandler

Written Comments Submitted at the Public Hearing

James Brown	Wade Noble
Terence Chandler	Juan Rubio

Additional Written Comments Received

James Brown	Ryan Easterday
John Colvin	Melinda Fram
Ray and Clara Eades: 2 Submittals	Ronald Terry: 3 Submittals
Brandon Easterday	David and Betty Thom
Donalyn Easterday	Rob Wilbur
	Carolyn Strickroth

(Note: Some of the public comments contain duplicative language. For example, some members of the public read their written comments at the public hearing and submitted the written comment – both submittals have been included for this compilation.)

Comments recorded at the Public
Hearings are referenced by speaker

PUBLIC HEARING COMMENTS

RE: SAN LUIS RIO COLORADO PROJECT

DECEMBER 7, 2006

YUMA, ARIZONA

3:09 P.M.

Christine Bemiss, RPR
Certified Court Reporter
Arizona CCR No. 50073

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2

3 HEARING OFFICER: GARY HOFFMAN

4

5 SPEAKERS: PAGE:

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Reference 27 → 9 PAUL KOCHIS 22

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1 P R O C E E D I N G S

2 * * * *

3 MR. HOFFMAN: On behalf of Western Area
4 Power Administration, I'd like to welcome you here this
5 afternoon to this public hearing being held at the Yuma
6 Civic and Convention Center.

7 I'm Gary Hoffman with Western Area Power
8 Administration's Office of General Counsel out of
9 Lakewood, Colorado. I will be the hearing officer for
10 this hearing.

11 Western Area Power Administration, which I'll
12 refer to as Western, is a power marketing agency under
13 the Department of Energy, also referred to as D.O.E.

14 Western markets Federal electric power to
15 municipalities and Native American tribes.

16 Western offers capacity on its transmission
17 system to deliver electricity when such capacity is
18 available under Western's Open Access Transmission
19 Service Tariff.

20 The purpose of today's hearing is to receive
21 formal oral comments on the proposed San Luis Rio
22 Colorado Project and on the Draft Environmental Impact
23 Statement, also referred to as an E.I.S., for the
24 proposed project. D.O.E. denotes this project as
25 D.O.E./E.I.S.-0395.

1 This formal hearing is a requirement of the
2 National Environmental Policy Act, usually referred to
3 as N.E.P.A., and is not a question and answer forum.

4 Prior to the start of this meeting, Western
5 representatives were available to discuss the project.
6 For those of you who may have arrived later, those
7 representatives will remain available after the formal
8 public hearing to discuss any general questions you may
9 have about the project.

10 Those representatives that are here, I'd like
11 to introduce them.

12 Mark Wieringa in the back of the room is the
13 N.E.P.A. document manager from Western.

14 John Holt is the Environmental Manager.

15 Steve Tromly is here. He is the Native
16 American liaison.

17 Enoe Marcum is the Environmental Specialist and
18 also a Spanish translator.

19 I failed to mention that if anyone requires the
20 use of a translator, we do have those capabilities here.

21 The consultant hired to assist D.O.E. in the
22 preparation of the Environment Impact Statement, E.I.S.,
23 the representative is Jessica Wilton. She's a Deputy
24 Project Manager with Tierra Environmental Consultants.

25 The Applicant is North Branch Resources,

1 L.L.C., and Joseph Bojnowski in the back of the room
2 from North Branch Resources, L.L.C. is here.

3 With him are two transmission consultants from
4 Western States Energy Solutions. I'd like to introduce
5 those gentlemen, Milton Percival and Jim Charters --

6 MR. PERCIVAL: He just stepped out a minute.

7 MR. HOFFMAN: -- the gentleman that's not here.

8 Another office of Department of Energy,
9 specifically the Office of Electricity Delivery and
10 Energy Reliability, is also involved in this proposed
11 project because of the need for a Presidential permit to
12 cross the international border. Dr. Jerry Pell regrets
13 that he cannot be here for this afternoon's meeting.

14 North Branch Resources, L.L.C., which I'll call
15 or refer to as N.B.R., and Generadora del Desierto, S.A.
16 de C.V., which I'm going to refer to as G.D.D., are the
17 Co-Applicants for this project. They are each wholly
18 owned subsidiaries of North Branch Holdings, L.L.C.

19 The Applicants propose to construct, operate,
20 maintain, and connect a double-circuited 500-kV electric
21 transmission line across the United States/Mexico
22 international border.

23 That proposed transmission line would originate
24 at the San Luis Rio Colorado Power Center in Sonora,
25 Mexico, and would interconnect with Western's Gila

1 substation, then continue on to Arizona Public Service,
2 A.P.S.'s, North Gila substation. Both those substations
3 are in Yuma County, Arizona.

4 The proposed project would require expanding
5 Western's Gila substation and would require additional
6 equipment at A.P.S.'s North Gila substation. Depending
7 on the transmission routes selected, the length of the
8 transmission lines in the United States would be
9 approximately 26 miles, with 21 miles from the
10 international border to Western's Gila substation and
11 approximately another 5 miles to A.P.S.'s north Gila
12 substation.

13 The transmission lines would cross lands owned
14 and/or managed by the U.S. Bureau of Reclamation,
15 referred to as Reclamation, the U.S. Department of Navy,
16 which I'll refer to as Navy, the State of Arizona, and
17 private lands.

18 G.D.D. proposes to construct and operate the
19 San Luis Rio Colorado Power Center, a new 550-megawatt
20 nominal, which is a 605-megawatt peaking, natural
21 gas-fired combined-cycle power plant, to be located
22 approximately three miles east of San Luis Rio Colorado,
23 Sonora, Mexico, and about one mile south of the
24 international border.

25 While this facility is not subjected to the

1 United States' regulatory requirements, D.O.E. has
2 evaluated potential impacts within the United States
3 associated with the construction and operation of the
4 San Luis Rio Colorado Power Center.

5 The proposed interconnection has resulted in
6 the preparation of the draft E.I.S. which was
7 distributed to those of you requesting a copy. If you
8 don't have a copy of that, there are copies in the back
9 of the room. There's also a shortened version, which is
10 called the Executive Summary, that's available if you
11 would like copies.

12 If you are on the mailing list, you should have
13 received a newsletter mailing from us asking if you
14 wanted a copy of the draft E.I.S. and provided
15 information about this hearing.

16 This hearing is to receive formal comments from
17 the public on the proposed projects and the draft E.I.S.
18 Representatives from both Western and the Applicants
19 were available earlier to discuss this project with you
20 and the draft E.I.S. They will also be available after
21 this formal hearing if you have more questions.

22 You may provide your comments today formally as
23 a speaker in front of the court reporter, in writing
24 left with us. There are forms that we have in the back
25 of the room that already have Western's address, so you

1 can make comments, put a stamp on it and return it to
2 us, or you can fax them to us or e-mail them to us.
3 They're due by December 26th, 2006. That would be the
4 postmark date.

5 All comments are considered equally regardless
6 of how they are received. All oral comments here today
7 are on the record as recorded by the court reporter, and
8 all timely received written comments will also become
9 part of the administrative record for the project and
10 will be considered in the preparation of the Final
11 Environmental Impact Statement.

12 The written comments would go to Mr. John Holt,
13 whose name is on the back of this form, but his address
14 is Western Area Power Administration, Desert Southwest
15 Region, P.O. Box 6457 -- if you need this from me later,
16 I can give it to you again -- Phoenix, Arizona
17 85005-6457.

18 Mr. Holt's fax number is 602-605-2630, and his
19 e-mail address is holt, h-o-l-t, @wapa, w-a-p-a, dot
20 gov.

21 As previously stated, the Applicants have
22 applied to interconnect the proposed project with
23 Western. Western, as a major transmission system owner,
24 is required to provide access on its transmission system
25 when it's requested by an eligible organization per

1 existing policies, regulations, and laws. However,
2 certain conditions apply to transmission access, and
3 Western must determine whether to grant or deny the
4 interconnection request. Further, the Applicant has
5 proposed that Western own, operate, and maintain the
6 transmission system components within the U.S. at the
7 Applicant's expense. Western is favorably considering
8 this request but has not rendered a formal decision
9 pending completion of a separate process, the Large
10 Generator Interconnection Process which is being
11 conducted under the Federal Energy Regulatory Commission
12 Requirements.

13 The Office of Electricity Delivery and Energy
14 Reliability, the other office of D.O.E., under Executive
15 Order 10485 and as amended by Executive Order 12038,
16 needs to make a decision to grant or deny a Presidential
17 permit for the construction, operation, maintenance, and
18 connection of the proposed transmission line that would
19 cross the United States/Mexico border.

20 Additionally, under section 202(E) of the
21 Federal Power Act, D.O.E. must determine whether to
22 grant or deny access to export electricity from the
23 United States to Mexico.

24 Reclamation will need to either grant or deny a
25 right-of-way request for the portion of the proposed

1 transmission line that would cross lands it manages.

2 Similarly, the Navy will need to grant or deny
3 a permit for the portion of the proposed transmission
4 line route that would cross the Barry M. Goldwater
5 Range.

6 The proposed interconnection would integrate
7 the supplied power into the regional transmission grid
8 for sale by the Applicants. The proposed project in the
9 United States would include constructing, operating, and
10 maintaining the transmission lines, the interconnection
11 to Western's Gila substation, and the terminal equipment
12 at A.P.S.'s North Gila substation.

13 I would note here that Western's agency
14 preferred alternative, and the environmentally preferred
15 alternative, identified in the Draft E.I.S. is not the
16 initial Applicant's proposed alternative discussed at
17 the scoping meetings. The Applicant proposed a
18 500-kilovolt double-circuit transmission line and
19 identified a route for that line.

20 Through D.O.E.'s environmental and engineering
21 analyses, several alternative routes and a 230-kV
22 alternative were identified. The project as now
23 proposed would be the 230-kV double-circuit transmission
24 line, and the route has changed in several locations to
25 avoid sensitive areas and engineering constraints and

1 reduce environmental impacts.

2 We have the poster boards here in the room
3 showing both the original Applicant's Proposed Project
4 and the preferred alternative, and our representatives
5 will be happy to discuss them with you after this formal
6 hearing.

7 As you entered the room this evening, we have
8 tried to ask if any of you wish to speak. Again, this
9 is not a time to ask me or other representatives
10 questions of the project. We will listen to your
11 comments, which are going to be recorded by the court
12 reporter, but we will not answer the questions during
13 the formal part of this hearing.

14 Western and representatives for the Applicants
15 will be available following the formal hearing to answer
16 questions and discuss the project with you.

17 I will be calling the people -- speakers who
18 have requested to speak. We do have some more sign-up
19 sheets. If any of you would like to speak, I'll give
20 you more opportunities. So far we don't have a lot.
21 I'm not going to propose a limit of time on how long you
22 have to speak.

23 If you have written comments, you may submit
24 them. Hand them to the court reporter. They'll become
25 part of the record. Or if you want to mail them in,

1 they will likewise become part of the record.

2 Again, the deadline is December 26, 2006.

3 The court reporter will be recording comments
4 received this afternoon as well as those written
5 comments submitted.

6 You may contact Mr. Holt if you wish to have a
7 copy of the hearing transcript.

8 Our court reporter is Christine Bemiss from
9 Bill Bort Court Reporting here in Yuma, Arizona. Their
10 phone number is (928) 782-7591.

11 All substantive comments received this evening
12 and throughout the public comment period will be
13 addressed in the final E.I.S. Public comments on the
14 draft E.I.S. assist decisionmakers by identifying
15 concerns and values of interested parties and by
16 pointing out any errors or omissions in the document
17 that need to be addressed.

18 Upon the expiration of the public comment
19 period, the final E.I.S. will be prepared. It is
20 anticipated the final E.I.S. will be issued in February
21 2007.

22 Following issuance and filing with the
23 Environmental Protect Agency, there will be a 30-day
24 waiting period before any decisions are made on that
25 final E.I.S. Western must consider approving the

1 interconnection request from the Applicant N.B.R. The
2 D.O.E. Office of Electricity Delivery and Energy
3 Reliability must consider approving the Presidential
4 permit by G.D.D. and authorization to export
5 electricity. The Navy and Reclamation must consider
6 granting rights-of-way or permits across lands they
7 manage.

8 The decisions made by Western, D.O.E. Office of
9 Electricity Delivery and Energy Reliability, Navy, and
10 Reclamation regarding the proposed project will be
11 issued following the final E.I.S. in the form of
12 separate records of decision by each agency.

13 The records of decision are anticipated to be
14 issued in March of 2007.

15 I will now call upon our first speaker, Mr. Jim
16 Babb.

17 When you do speak, if you can spell your
18 name -- it's pretty straightforward -- for the reporter.

19 And it might be a little easier if you came
20 back behind the table so she can hear you.

Reference 24

→ 21 MR. BABB: That's fine.

22 Good afternoon. My name's Jim Babb, J-i-m,
23 B-a-b-b. I'm not real good at this, so I might stutter
24 a little bit.

25 I applied for the 30-page document here and I

1 received it today when I got here, but in my short time
2 period of being able to go through this, we expect
3 things like this to be real accurate, but on the first
4 page here it says that from North Gila substation to the
5 Gila substation is five miles. Well, personally I know
6 it's a little more than five miles. Probably closer to
7 seven. So from that end, also, on the last page here,
8 the health part on the last page of this 30-page
9 document, it tries to tell you that there's no harm, but
10 it doesn't have a conclusive fact that there is no harm
11 in the power lines.

24.1 →

24.2 →

12 And I've got a little prepared statement here
13 that I'd like to read, and I'm just going to read right
14 down through it.

24.3 →

15 First off, you can tell probably by the way I'm
16 acting that I'm opposed to the project here.

17 I do have a set of the power poles on my
18 property that they're planning on putting this

24.4 →

19 230-kilovolt line through. So I thank you for the
20 document today, okay, but I didn't have time to look at
21 it.

24.5.1 →

22 Okay. First, do we want to endanger the
23 flat-tailed lizard? No. Do we want to hinder military
24 use of the Barry Goldwater Range? No. Do we want to
25 place more structures in the way to make crop tending

24.5.2 →

24.5.3 →

24.5.3
cont'd

1 more hazardous, which by the way in itself is
2 endangered? Definitely not, in my opinion.

3 Okay. According to A.P.S. -- and my -- another
4 thing is, my sources come out of the Daily Sun, and I
5 didn't have this right here, and I've got the copy of
6 the Daily Sun that I've got the references from. That's
7 all I had to go by.

8 A.P.S. does plan a loop around the city of
9 their own, which they're evidently not involved in this,
10 according to this article here, and I'll quote what
11 Mr. Jim Valenzuela said. "The utility has had some
12 discussions about connecting future A.P.S. lines to the
13 proposed lines. However, he said, the utility has to
14 move forward with its own expansion plans because it
15 can't count on this actually happening." And that's a
16 direct quote from Jim Valenzuela. I don't know if he's
17 here or not. I don't really even know the man.

24.6

18 Now, in making my own calculations from this
19 article right here out of the Daily Sun, it says right
20 here 1 megawatt serves 750 homes. A 230-kilovolt line
21 can carry about 1500 megawatts. I understand by talking
22 to one of the gentlemen out here that that's not exactly
23 dollar for dollar there, but with my calculations,
24 that's three times the capacity of the plant
25 that they're planning on building. A 230-kilovolt

1 double-circuit line in actuality can carry, which I
2 found this out today, 460 kilovolts, which makes that,
3 according to these calculations, three times -- six
4 times the capacity.

24.7 →

5 I don't understand why you want to build a
6 six-time capacity line for a 550-megawatt plant.
7 Doesn't make a lot of sense to me.

24.8 →

8 If the power is to go to California, my
9 suggestion is run it through California. Algodones is
10 connected to California right over here. If the
11 alternative to tie it to A.P.S.'s loop around the city
12 that A.P.S. is planning on putting around the city, the
13 city limits extend much closer on the south side of the
14 city than they do to the North Gila substation. I don't
15 live far from that North Gila substation. Twenty-six
16 miles of line, ten miles back to Yuma. Okay. Doesn't
17 make a lot of sense to me there either.

24.9 →

18 And as far as my family and my wife and my son,
19 we all live in the same area. We're all opposed to it.
20 That's myself, Jim, my wife, Debbie, and my son, Tom,
21 and his family.

24.10 →

22 In my opinion, there's no place on my property
23 or any farmland for a project such as this to go in, be
24 it 230 kilovolts or 500 kilovolts or whatever.

25 That's all I have to say. Thank you.

1 MR. HOFFMAN: Thank you, Mr. Babb.

2 MR. BABB: Thanks for listening.

3 MR. HOFFMAN: Mr. Max -- is it Bardo?

Reference 25

→ 4 MR. BARDO: Bardo, yes.

5 I don't like to speak to people's back, and you
6 got to hear.

7 MR. HOFFMAN: I think she can hear you.

8 MR. BARDO: Of course, I've never had a problem
9 being heard.

25.1

→ 10 I'm opposed to this project for several
11 reasons. Number one, I'm putting on my -- I've been on
12 the County Planning and Zoning Commission for 23 years,
13 and I've been chairman several times, and we have tried
14 over that period, going way back -- and that is a long
15 time because this City was very fledgling as far as
16 planning went 23 years ago. It's come a long way, baby,
17 since then.

18 The prime ag land that both the City's general
19 plan and the County's general plan refers to is located
20 in the Yuma Valley, the Gila Valley, and the
21 Wellton/Mohawk Valley. And the definition of "prime"
22 which both the City and the County and even the State
23 refers to, it doesn't talk about soil type or anything,
24 it talks about the type of land where you grow produce,
25 lettuce, broccoli, and cauliflower. You can't do that

1 on the Mesa.

2 I used to work for a produce man, Gary
3 Pasquinelli, who told me, I can grow broccoli in Sears
4 parking lot easier than I can on the Mesa. So the
5 Mesa's not the problem as far as agriculture goes, it's
6 cutting across from the Gila substation north to the
7 A.P.S. substation. That is prime ag land. Sixty
8 percent of Yuma's economy comes from that prime ag land
9 through lettuce, broccoli, and cauliflower. Sixty
10 percent. And then it trickles down from the ag
11 business, and right now, as far as everyone knows, we're
12 in the heart of the season as far as harvest.

25.2 →

13 I'm concerned that it goes across that area
14 there which is prime ag land and the Gila Valley, I'm

25.3 →

15 concerned about crop dusters, I'm concerned about
16 hindrance to farmers to actually farm that land. I

25.4 →

17 don't know if there's going to be an access road
18 underneath it between the poles or not. That could be
19 even a more egregious situation if it was, keeping
20 produce from moving from one side to the other.

21 Anyway, that's a problem as I see it. It's on
22 prime ag land.

23 The second problem, the second hat that I'm
24 wearing, is a pilot. I flew fighters for the Marine
25 Corps for 22 years. I flew corporately for 18 years out

1 of this air station, and I fly privately now out of this
2 air station. Pilots don't like power poles, especially
3 ones that are 175 feet, and from a military -- from back
4 to my military days, a power line that separates where
5 the air station -- where the planes take off and land to
6 the area that they go to could be a problem. We're not
7 talking about the high flyers, we're talking about
8 choppers, we're talking about harriers, we're talking
9 about the harrier training area just to the southeast of
10 us. So I look at it from that standpoint as well.

25.5 →

11 And, thirdly, but honestly not least, I just --
12 my wife and myself and several other people invested in
13 a multi-million dollar subdivision just north of the
14 college right north of -- 22 acres right there on the
15 bluff. It's called Adobe Ridge. And knowing that the
16 prime ag land of the Gila Valley was going to be for the
17 foreseeable future, because of politics, because of
18 economics is going to be kept in prime ag land and not
19 turned into development, which is happening all along
20 the Mesa, we decided this would be an excellent
21 opportunity to look at the best view in Yuma, which is
22 to the northeast from the college, right up towards
23 Castle Dome and the other valleys. Guess what, guys?
24 One and a quarter miles perpendicular is going to be a
25 175-foot power line. And I'm the president of the

25.6 →

25.6
cont'd

1 homeowners' association, and we're not talking ticky-tac
2 houses there, we're talking big homes, a lot of
3 investment, and they're sort of irate about this
4 because, you know, the valley is a beautiful valley and
5 that's why that subdivision was picked, because of the
6 view.

7 So those three items -- those three items, and
8 I can honestly say none is greater than the other, but
9 they are three points that I disagree with.

10 Thank you very much. Appreciate it.

11 MR. HOFFMAN: Thank you for your comments.

12 We don't have anyone else that signed up, but I
13 do want to invite anyone that's here.

14 (Two people raised their hands.)

15 MR. HOFFMAN: We've got a couple more speakers.

16 This gentleman in the first row first.

17 If you'll state your name for the reporter,
18 that would help.

Reference 26

19 MR. GRUBB: Sherman, S-h-e-r-m-a-n, Grubb,
20 G-r-u-b-b.

26.1

21 And like that gentleman, I'm concerned as a
22 pilot. I have an airplane at Somerton Airport, and
23 along the edge of the traffic area control area is class
24 D airspace, and that is airspace that is not required
25 for traffic control nor for transponders and that type

1 of thing.

2 That corridor coming through that area is about
3 the only corridor left for people who own Ultralights,
4 who own light aircraft, and that is open to flight
5 without going through the tower at Yuma.

6 A lot of the airplanes that you look at in the
7 Light Sport and the Ultralights, they do not have
8 radios, they do not have transponder equipment, so that
9 class D airspace is important for them to come in and
10 come out of the area.

11 Somerton Airport has quite a few folks over
12 there who are in what they call the experimental
13 aircraft association members, and this pretty much
14 impacts all of them. And I don't know exactly how many
15 members we have, but I would guess somewhere in the
16 neighborhood of 80. So that airspace is important to
17 us, and with power poles the height of what you're
18 talking about, you're looking at a safety problem as far
19 as safety of flight is concerned.

20 Yes, we can fly over the top of them, but if
21 you would ever have a problem with an airplane and you
22 would have to land someplace, power poles are a poor
23 place to land.

24 So that is an impact to us folks at Somerton
25 Airport. Thank you.

26.1
cont'd



1 MR. HOFFMAN: Thank you.

2 This gentleman, please.

Reference 27 →

3 MR. KOCHIS: My name is Paul K-o-c-h-i-s,
4 Kochis.

5 Good afternoon. We live basically on the Mesa
6 right at the intersection of where that line will come
7 into 4E. There are basically five-acre sites out there
8 with homes on them.

27.1 →

9 In the original presentation, I heard two
10 things. I heard that the military has to give
11 permission, the government has to give permission for
12 the line to cross. Well, what about us? It's going to
13 affect a lot of our properties when that line cuts
14 through there. We don't know and have not been
15 contacted about the right-of-way specifically of where
16 that line would go.

27.2 →

17 We have two major concerns. One -- and it was
18 brought up already -- which is the Arizona flat-tailed
19 lizard. That is habitat. There's been all kinds of
20 environmental studies on that. And putting power
21 structures in there is gonna disrupt that because to put
22 those poles up you've gotta run heavy equipment through
23 there and all kinds of things to worry about for the
24 lizard.

25 The second thing, and it includes flight, both

1 from the Somerton Airport but we live close to Aux 2, or
2 Auxiliary Airfield 2. On the back side of my property
3 we have a circular arena, 150 foot. Basically, the
4 harriers, the helicopters use that as a turn area to go
5 into Aux 2. 175-foot power poles are gonna take some of
6 those planes out eventually. They're just in the wrong
7 area. They're too high and too close to where the
8 military conduct low-level flight. They make their
9 approaches right through that corridor right over 4E
10 into Aux 2. That's gonna be a problem.

27.3 →

11 Thank you.

12 MR. HOFFMAN: Thank you.

13 (A hand was raised.)

14 MR. HOFFMAN: Yes, ma'am, please come up.

15 And, again, if you could spell your name for
16 the court reporter.

Reference 28 →

17 MS. MASON: Betty, B-e-t-t-y, Mason, M-a-s-o-n.

18 I live in Tacna, so this is something that
19 really maybe shouldn't concern me, but I was -- in 2000
20 I was on the Citizens Committee for the long-term stuff
21 for the County and I'm gonna be on the next one, and one
22 of the very top things of what we said needed to be
23 preserved was the agriculture, as Mr. Babb knows so
24 well, beings he is a farmer, and there's just no way
25 that that's not going to impact the farming, the

28.1 →

28.2

1 airplanes, and the flat-tailed horned lizards.

28.3

2 I don't know whether any of you read Jerry
3 Diamond's booked called "Collapse," but in there he says
4 something about of all the little things that matter, if
5 you -- they don't matter, it's just a little lizard, but
6 he likened that to an airplane and all the rivets in it.
7 What does it matter if one rivets are gone or two rivets
8 are gone? That's the same thing.

9 Thank you.

10 MR. HOFFMAN: Thank you.

11 Was there someone else that wanted to speak?

12 (A hand was raised.)

13 MR. HOFFMAN: Please come forward, sir. We're
14 just asking that you spell your name for the court
15 reporter so she can get it down.

Reference 29

16 MR. SALTZER: Okay. S-a-l-t-z-e-r.

17 I thought we were starting at 4:00. Are we
18 starting early?

19 MR. HOFFMAN: We started at 3:00 is what,
20 hopefully, the notice said.

21 MR. SALTZER: I thought it was open house at
22 5:00.

29.1

23 Okay. Well, I'm opposed to the project from
24 the beginning. First, we're talking about energy

29.2

25 independence and now we're contemplating building a

29.2
cont'd

1 plant in Mexico. It just doesn't seem to equate there.
2 There's been some -- what I've read in the
3 paper, that Arizona Public Service might not be able to
4 meet our needs as was indicated by the power plant side.
5 I don't think that's the case at all. It's never come
6 up in any discussions that there was inability to
7 provide power and now all of a sudden we hear that this
8 plant is going to help Yuma. Sounds like that's just

29.3

9 another sales gimmick here. We're talking about
10 pollution. We have a plant which is south of us. All
11 summer the winds are from the south. That's just gonna
12 add to the pollution load for Yuma. We're on the edge
13 of becoming a nonattainment area. This certainly won't
14 help Yuma one iota.

29.4

15 The power line I can't see helping Yuma at all.
16 They're looking for the easiest route from the border to
17 the substation, North Gila, and it was suggested the
18 area service highway, but from everything I've read, the
19 right-of-way for that highway has never entertained any
20 other utilities, private or governmental, other than a
21 highway.

29.5

22 From what I've read in the paper, the Marine
23 Corps only bought into a highway, though I've seen in
24 the past people wanting to put rail lines, gas lines,
25 and the environmental work that's been done on that

29.5
cont'd

1 highway, it's a 200-foot wide right-of-way primarily,
2 and there's certainly not room for a power line.

3 You talked about protecting the Range. This
4 could be one of the worst encroachment items that could
5 come about, 150- to 175-foot towers. That's certainly
6 not gonna be a plus for Yuma County, the Marine Corps,
7 or the continued growth of the Marine Corps training on
8 the Goldwater Range. Even if it's set back a mile or
9 two, it's still a high obstacle.

29.6

10 And I'm here also to address civil aviation. I
11 brought a chart, but I won't enter that. Essentially,
12 there's a corridor about a mile wide that you can fly
13 east of the air station without being on the radio or
14 talking to anyone. It's between the restricted area and
15 the area controlled by the tower at the Marine Corps Air
16 Station. This has been convenient for general aviation
17 crop dusters to fly. The route where this power line is
18 going is right in that route.

29.7

19 We've had one border patrol plane hit a high
20 voltage line out by the sand dunes. Killed the pilot.
21 Planes hit power lines. They're hard to see. And this
22 is gonna be an obstacle.

29.8

23 It's also gonna affect crop dusters. I see a
24 plane fly every day that route going to Wellton, many
25 flights a day sometimes. At night he's flying probably

29.8
cont'd

1 at 100, 150 feet.

2 So I see no gain from that power line. It's a
3 method to circumvent environmental laws, build it in
4 Mexico, for obvious reasons, cost, environmental
5 requirements, deliver power up to the existing grid and
6 sell it to California. So I'm totally opposed.

29.9

7 Thank you.

8 MR. HOFFMAN: Would anyone else like to make a
9 comment? You still have plenty of time.

10 The fact that you may have made an oral
11 comment, you're still more than welcome to also submit a
12 written comment, and we do have those forms in back.

13 Before I end --

14 MR. SALTZER: I might add, I believe there's
15 some people coming at 4:00. For some reason there was a
16 thought that the public meetings ran from 3:00 to 5:00.
17 So I know there's additional people that plan to attend
18 the next 20 minutes.

19 MR. HOFFMAN: Okay. What I'm gonna propose,
20 then, is that we just take a break until 4:00 and
21 reconvene. If anyone is here that wants to speak, we'll
22 give them that opportunity.

23 So thanks.

24 (A break was taken from 3:45 p.m. until
25 4:22 p.m.)

1 MR. HOFFMAN: Again, my name is Gary Hoffman.
2 We had an informal open house starting at 2:00 today and
3 at 3:00 we started the formal hearing process and
4 invited speakers to come up and give comments on the
5 record.

6 At the end of the people that were speaking,
7 one gentleman pointed out he thought some more people
8 were gonna come at 4:00, so we just went off the record
9 for a while. We're back on the record, and I'd like to
10 invite other people who have signed up to speak; and if
11 you haven't, I'll ask for hands and you can come up then
12 also.

13 The first one I have is Betty Oppenheimer.

14 Would you like to come up.

15 And if you could spell your last name for the
16 reporter.

Reference 30



17 MS. OPPENHEIMER: Good Irish name,
18 O-p-p-e-n-h-e-i-m-e-r.

30.1



19 I'm against this thing. I mean, it's really
20 simple. What really got me riled was someone in the

30.2



21 paper from Tree Huggers, Incorporated, or whatever,
22 said, well, we're concerned about infertility of the
23 horny toad. Who gives a damn about infertility in a
24 horny toad. We've got children that live right out
25 there that will be right underneath that thing. We've

30.2
cont'd

1 got infants, we've got toddlers, we've got elementary,
2 high school, junior high school, we've got young women
3 of childbearing age. Who gives a damn about whether
4 they're going to be infertile. That's one of the things
5 that upsets me.

30.3

6 Another thing, we're on a fixed income, and
7 there's other people that live out there that have put
8 everything they have into their property. We've got
9 five acres out there. We don't go into town and go to
10 the movies or go eat out every night. We can't afford
11 that. Our enjoyment, our entertainment is our

30.4

12 television. What the hell is that gonna do to our T.V.
13 reception? We've got the Dish Network or we've got
14 local antenna, and we're very happy with that. If that
15 thing comes in, it's liable to screw it up.

30.5

16 Unfortunately, we can't go to bed and make
17 babies. I'm past that age. But it's terrible. I mean,
18 it's -- that's not being very nice, but it's true. What
19 else can we do? You know, the T.V.'s broke, look out.
20 But I'm concerned about that. I'm concerned about

30.6

21 this -- what this thing can do to our unborn -- born and
22 unborn children. I'm concerned about our television and
23 cell phone thing.

24 The people who have made this study, it seems
25 to me that they can sit back -- it's like they had some

1 guy out at Y.P.G. that wanted to test-fire one of those
2 big guns and he told the Coronal, he said, "Well, I'll
3 stay out here. I'll sit on this breech and I'll pull
4 the trigger." He said, "No, you won't. You'll get back
5 here in the bunker." And they pulled it and it blew up.
6 Well, my goodness. Well, that was a defective gun
7 barrel. It was one of your defective gun barrels. They
8 did it again. He says, "Well, gee whiz, it worked fine
9 on paper." And that's what I'm afraid of. It's gonna
10 work fine on paper for somebody who doesn't have to live
11 out here and live under it.

12 And I'm upset. I'll tell you, I am really,
13 truly upset, and I'll fight it every way that I can.
14 I've got neighbors -- I've got one, two, three, four,
15 five neighbors here that live right there with me.
16 We've got one family that is still finishing about a
17 \$100,000 home -- isn't that right -- right underneath
18 that thing. We are maybe 300 feet from it, if we're
19 that far, if we're that far, because we're right under
20 it. They're gonna be right under that range of the
21 radiation or whatever.

22 It's wrong. We don't need it and whoever got
23 this brilliant idea needs to forget it. I'm concerned.
24 I really am. I've laughed and kidded, but I'm really
25 concerned. I'm concerned about our children, our unborn

30.7



30.8

1 children, if this is gonna affect them, if it's gonna
2 affect young women that live out there that have small
3 children and are of childbearing age.

30.9

4 My main concern is the kids, and I'm gonna get
5 awful upset -- of course, like the gentleman said, he
6 said, well, you know, if your T.V. doesn't work, we'll
7 send someone out and check it out, and it may be a loose
8 connection. I have a four-letter word for that but I
9 won't say it.

30.10

10 I'm sorry, I just -- this is unnecessary,
11 unneedful. It's a useless thing and we don't need power
12 from Mexico. And A.P.S. is in the middle of it. You've
13 talked and I'm trying to listen, I'm trying to hear you,
14 but I pretty much feel that as far as we're concerned,
15 it's a done deal and we can't do a damn thing about
16 it.

Reference 31

17 MR. HOFFMAN: Mr. Oppenheimer, you signed up
18 also.

19 MS. OPPENHEIMER: Give them hell, Sam.

20 MR. OPPENHEIMER: I live with her.

21 MS. OPPENHEIMER: He has to retaliate.

31.1

22 MR. OPPENHEIMER: We were here at the first
23 meeting they had here, and I don't think anything much
24 has changed. My concern is -- other than what Betty had

31.2

25 already said, you're encroaching on that Barry Goldwater

31.2
cont'd

1 Range, and all the do-gooders need is for them to get a
2 toehold on that Goldwater Range. If we lose the Barry
3 Goldwater Range, we've lost M.C.A.S., we've lost Luke
4 Air Force Base, and we've lost Davis-Monthan because
5 they're here because that gunnery range is so readily
6 available.

31.3

7 If you got to have that power line -- and I
8 understand all that juice is going into California --
9 then why don't you run it through Mexicali or someplace
10 in California? We don't want it. We don't need it. So
11 move it to another state.

12 Thank you.

13 MS. OPPENHEIMER: Is that gonna be moving that
14 electricity into California? Is that right?

15 MR. HOFFMAN: One of the things you missed here
16 is that the public hearing part of this hearing is not a
17 question and answer period.

18 MS. OPPENHEIMER: Oh, I'm sorry.

19 MR. HOFFMAN: But that's fine. After this, the
20 formal part, people -- the representatives are here to
21 answer your questions.

22 MS. OPPENHEIMER: Oh.

23 MR. HOFFMAN: There is another gentleman that
24 indicated he wanted to speak.

25 If you could come up and tell the court

1 reporter your name and spell your last name for her.

Reference 32 →

2 MR. RACHELS: My name's Paul Rachels,
3 R-a-c-h-e-l-s.

4 Okay. My name's Paul Rachels. I'm the
5 president of the Local Experimental Aircraft
6 Association. I'm speaking for about 50 members. And
7 I'm also the charter member and the membership chairman
8 of the Yuma Aviation Association, another 100-member
9 group of pilots. We oppose this corridor for the fact
10 that it's gonna interrupt our guys that are flying
11 without electricity power in the aircraft and the
12 Ultralight guys with no radio. We can actually legally
13 fly our aircraft through this area now. We don't have
14 to violate the Yuma class D airspace because we have a
15 little escape route through there. We can go between
16 the bombing range and Yuma class D airspace without
17 contacting them on a radar or the radio. That gives us
18 the chance with -- the guys without radios, obviously,
19 and they don't have to speak to the Yuma Class D
20 airspace or the Yuma tower.

32.1 →

21 I speak for 50 members of the E.A.A. and 100
22 members of the pilots of Yuma Aviation Association, like
23 I said, and we're completely against this because it
24 just interferes with our right to fly the friendly
25 skies.

32.2



1 And as a personal note, if the power's going to
2 California, let them build it over there.

3 MS. OPPENHEIMER: That's right.

4 MR. HOFFMAN: Thank you.

5 MR. RACHELS: Thank you.

6 MR. HOFFMAN: Would anyone else like to speak
7 that has not signed up? I've gone through all the
8 sign-up cards that we had of people that wanted to
9 speak.

10 I did want to let everyone know that we have
11 another -- we're repeating this whole process this
12 evening starting at 6:00. We have an open house, the
13 informal open house, question and answer, and at 7:00
14 we're going to take formal comments again.

15 And as I've mentioned earlier, in case you
16 weren't here, if you've given an oral comment, you're
17 still welcome to give a written comment. We need those
18 back by December 26th.

19 If you have any questions, representatives of
20 the Applicant and Western are present here.

21 And we're going to go ahead and conclude this
22 formal hearing.

23 And, again, we'll do a mirror image one, a
24 repeat, this evening. Thank you.

25 (The formal comment hearing concluded at

1 4:32 p.m.)

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1 STATE OF ARIZONA)
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2 COUNTY OF YUMA)

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Be it known that the foregoing proceedings were taken before me, CHRISTINE BEMISS, a Certified Court Reporter in and for the State of Arizona; that the proceedings thereto were taken down by me in machine shorthand and thereafter produced under my direction; that the foregoing 35 pages are a true and correct transcript of all proceedings had, all done to the best of my skill and ability.

I further certify that I am in no way related to any of the parties hereto, nor am I in any way interested in the outcome hereof.

Dated at Yuma, Arizona, this 19th day of December, 2006.

CHRISTINE BEMISS, RPR, CCR
Arizona CCR No. 50073,
California CCR No. 10082

Comments recorded at the Public
Hearings are referenced by speaker

PUBLIC HEARING COMMENTS

RE: SAN LUIS RIO COLORADO PROJECT

DECEMBER 7, 2006

YUMA, ARIZONA

7:05 P.M.

Christine Bemiss, RPR
Certified Court Reporter
Arizona CCR No. 50073

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1 P R O C E E D I N G S

2 * * * *

3 MR. HOFFMAN: We'll go ahead and get started.

4 On behalf of Western Area Power Administration,
5 I'd like to welcome you to this evening's public hearing
6 being held here at the Yuma Civic and Convention Center.7 I'm Gary Hoffman, an attorney with Western Area
8 Power Administration's Office of General Counsel, and I
9 will be the hearing officer for this hearing. I'm out
10 of Lakewood, Colorado.11 Western Area Power Administration, which I'll
12 refer to as Western, is a power marketing agency under
13 the Department of Energy. Western markets Federal
14 electric power to municipalities, public utilities, and
15 Native American tribes.16 Western offers capacity on its transmission
17 lines -- on its transmission system to deliver
18 electricity when such capacity is available, and that's
19 done so under Western's Open Access Transmission Service
20 Tariff.21 The purpose of this evening's hearing is to
22 receive formal oral comments on the proposed San Luis
23 Rio Colorado project and on the Draft Environmental
24 Impact Statement, or E.I.S., for the proposed project.
25 That E.I.S. is denoted by D.E.O. as D.E.O./E.I.S.-0395.

1 This formal hearing is a requirement of the
2 National Environmental Policy Act, which is usually
3 referred to as N.E.P.A., and it is not a question and
4 answer forum.

5 Prior to the start of this formal hearing,
6 Western representatives were available to discuss the
7 project. For those of you that may have arrived later,
8 those representatives will be available once we're done
9 with the formal public comment portion of this hearing.

10 I'd like to introduce the representatives that
11 are present tonight.

12 Mark Wieringa at the back of the room is the
13 N.E.P.A. document manager from Western Area Power
14 Administration.

15 John Holt is from Western Power
16 Administration -- Western Area Power Administration.
17 He's the environmental manager for this region.

18 Enoe Marcum is an environmental specialist and
19 also a translator. If translator services are needed
20 tonight, we can do that.

21 The consultant hired by Department of Energy to
22 help in compiling the Environmental Impact Statement is
23 Tierra Environmental Consultants, and the representative
24 from Tierra is Jessica Wilton in the back of the room.

25 North Branch Resources, L.L.C., is represented

1 by Joseph Bojnowski, the gentleman in the blue sweater.

2 And -- let's see -- we do have
3 representatives -- consultants to North Branch from
4 Western States Energy Solutions. We have Milton
5 Percival straight back there and Jim Charters.

6 Another office of Department of Energy,
7 specifically the Office of Electricity Delivery and
8 Energy Reliability, is also involved in this proposed
9 project because of the need for a Presidential permit to
10 cross the international border. Dr. Jerry Pell of that
11 office regrets that he cannot be here this evening.

12 North Branch Resources, L.L.C., which I'm gonna
13 refer to as N.B.R., and Generardora del Desierto, S.A.
14 de C.V., which I'm gonna refer to as G.D.D., are the
15 Co-Applicants for this project. They are each wholly
16 owned subsidiaries of North Branch Holdings, L.L.C.

17 The Applicants proposed to construct, operate,
18 maintain, and connect a double-circuited 500-kV,
19 kilovolt, electric transmission line across the United
20 States/Mexico international border. That proposed
21 transmission line would originate at the new San Luis
22 Rio Colorado Power Center in Sonora, Mexico, and it
23 would connect with Western's Gila substation and then
24 continue to Arizona Public Service, or A.P.S., Company's
25 North Gila substation. Both those substations are in

1 Yuma County, Arizona.

2 The proposed project would require expanding
3 Western's Gila substation and would require the addition
4 of equipment at A.P.S.'s North Gila substation.

5 Depending on the route selected, the length of
6 the transmission lines in the United States would be
7 approximately 26 miles, with 21 miles from the
8 international border to Western's Gila substation plus
9 an additional approximate 5 miles to A.P.S.'s North Gila
10 substation.

11 The transmission lines would cross lands owned
12 and/or managed by the U.S. Bureau of Reclamation, also
13 referred to as Reclamation, and the U.S. Department of
14 Navy, or Navy, the State of Arizona, and private lands.

15 G.D.D. plans to construct and operate the San
16 Luis Rio Colorado Power Center, a new 550-megawatt
17 nominal, or 605-megawatt peaking, natural gas-fired
18 combined-cycle power plant which would be located
19 approximately three miles east of San Luis Rio Colorado,
20 Sonora, Mexico, and about one mile south of the
21 international border.

22 While this facility is not subject to United
23 States regulatory requirements, D.O.E. has evaluated
24 potential impacts within the United States associated
25 with the construction and operation of that power plant.

1 The proposed interconnection has resulted in
2 the preparation of a draft E.I.S., a Draft Environmental
3 Impact Statement, which was distributed to those of you
4 requesting a copy. If you don't have a copy and would
5 like one, we have them in the back of the room. I'm
6 holding up one of those copies. If you prefer, we have
7 a shorter version, which is just the Executive Summary.
8 It's approximately the first 28 pages of the Draft
9 Environmental Impact Statement.

10 If you're on the mailing list, you should have
11 also received a newsletter mailing from us asking if --
12 asking us if you -- us asking if you wanted a copy of
13 the draft E.I.S. and providing information about this
14 hearing.

15 This public hearing is to receive formal
16 comments from the public on the proposed project and on
17 this Draft Environmental Impact Statement.

18 As mentioned before, representatives from both
19 Western and the Applicants were available for the open
20 house informal discussion starting at 6:00, and we were
21 actually here before that. They will also be available
22 after this hearing.

23 You can provide comments to us tonight either
24 formally, orally on the record, in writing on any form
25 you want, although we have the form if you would like.

1 You can give us the written comments tonight, you can
2 take the form and mail them to us -- they need to be
3 postmarked no later than December 26th of 2006 -- or you
4 can fax them to us or mail them to us by that same date.

5 All comments are considered equally regardless
6 of how they're received. All oral comments made here
7 this evening are on the record as recorded by the court
8 reporter and all timely received written comments will
9 become part of the administrative record for the
10 project. That administrative record will be considered
11 in the preparation of the Final E.I.S.

12 Written comments by fax, letter, or e-mail need
13 to be sent to Mr. John Holt. I'll read off his address
14 to you. If you want it, it's on the back of the form,
15 or I can give it to you later or he can give it to you
16 later. It's Mr. John Holt, Environmental Manager,
17 Desert Southwest Region, Western Area Power
18 Administration, P.O. Box 6457, that's in Phoenix,
19 Arizona 85005-6457.

20 His fax number is (602) 605-2630.

21 His e-mail address is holt, h-o-l-t, @wapa,
22 w-a-p-a, dot gov.

23 As previously stated, the Applicants have
24 applied to interconnect the proposed project with
25 Western. Western, as a major transmission system owner,

1 is required to provide access to its transmission system
2 when it's requested by an eligible organization per
3 existing policies, regulations, and laws. However,
4 certain conditions apply to transmission access, and
5 Western must determine whether to grant or deny the
6 interconnection request.

7 Further, the Applicant has proposed that
8 Western own, operate, and maintain the transmission
9 system components within the U.S. at the Applicant's
10 expense.

11 Western is favorably considering this request
12 but has not rendered a formal decision pending the
13 completion of a different process, that being the Large
14 Generator Interconnection Process which is conducted
15 under the Federal Energy Regulatory Commission
16 requirements.

17 The Office of Electricity Delivery and Energy
18 Reliability, the separate office of D.O.E., it's an
19 organizational unit under D.O.E., under Order --
20 Executive Order 10485, and as amended by Executive Order
21 12038, needs to make a decision to either grant or deny
22 a Presidential permit for the construction, operation,
23 maintenance, and connection of the proposed 500-kV
24 transmission line that would cross the United
25 States/Mexico border.

1 Additionally, under section 202(E) of the
2 Federal Power Act, D.O.E. must determine whether to
3 grant or deny authorization to export electricity from
4 the United States to Mexico.

5 Reclamation will also need to either grant or
6 deny a right-of-way for a portion of the proposed
7 transmission line route that would cross lands that it
8 manages.

9 Similarly, the Navy needs to either grant or
10 deny a permit for a portion of the proposed transmission
11 line route that would cross the Barry M. Goldwater
12 Range.

13 The proposed interconnection would integrate
14 the supplied power into the regional transmission grid
15 for sale by the Applicants.

16 The proposed project in the United States,
17 including the -- would include constructing, operating,
18 and maintaining the transmission lines, the
19 interconnection to the Western Gila substation and the
20 terminal equipment at A.P.S.'s North Gila substation.

21 I would note here that Western -- Western's
22 agency preferred alternative, and the environmentally
23 preferred alternative identified in the Draft
24 Environmental Impact Statement is not the same as the
25 initial Applicant's proposed alternative discussed at

1 the scoping meetings previously held.

2 The Applicant had proposed the 500-kilovolt
3 double-circuit transmission line and had identified a
4 route for that line.

5 Through D.O.E.'s environmental and engineering
6 analyses, several alternative routes and a 230-kV
7 alternative were identified.

8 The project as now proposed would be a 230-kV
9 double-circuited transmission line, and the route has
10 been changed in several locations to avoid sensitive
11 areas and engineering constraints and reduced
12 environmental impacts.

13 We do have the poster boards in the room
14 showing both the original proposed project by the
15 Applicant and the preferred alternative, and, again, our
16 representatives would be happy to discuss them with you
17 after this hearing if you have not had an opportunity to
18 do so before the hearing.

19 As you entered or after you entered, we've
20 asked if you're interested in speaking. At this time
21 it's not a time to ask questions of me or other
22 representatives. We will listen to your comments,
23 they're gonna be recorded by the court reporter, but we
24 will not answer questions during this formal hearing.
25 We will be available after the hearing to discuss the

1 project and answer any questions that you may have.

2 If you have not signed in and wish to do so,
3 we'd ask that you do that so I'm sure to call everyone
4 that wishes to speak.

5 I'm not proposing to put a deadline on -- time
6 limit on how long you speak. I think we've got time for
7 everyone to make the comments that they wish.

8 Again, alternatively, if you want to make a
9 written statement, you can do that and hand it in
10 tonight or get it to us with a postmark no later than
11 December 26, 2006.

12 The court reporter will be recording the
13 comments received this evening as well as any written
14 comments that you submit.

15 You may contact Mr. Holt if you wish to have a
16 copy of tonight's hearing transcript.

17 Our court reporter is Christine Bemiss, working
18 for Bill Bort Court Reporting out of Yuma, Arizona.
19 That phone number is (928) 782-7591.

20 All substantive comments received this evening
21 and through the public comment period will be addressed
22 in the final E.I.S.

23 Public comments on the Draft E.I.S. assist the
24 decisionmakers by identifying the concerns and values of
25 interested parties and by pointing out any errors or

1 omissions in the document that need to be addressed.

2 Upon the expiration of the public comment
3 period, the final E.I.S. will be prepared. It is
4 anticipated that final E.I.S. will be issued in February
5 of 2007.

6 Following issuance and filing of that final
7 E.I.S. with the U.S. Environmental Protection Agency,
8 there will be a 30-day waiting period before any
9 decisions are made.

10 Western's decision is to consider whether to
11 approve or not to approve the interconnection request of
12 the Applicant N.B.R.

13 The D.O.E. Office of Electricity Delivery and
14 Energy Reliability must consider approving the
15 Presidential permit requested by G.D.D. and authorizing
16 to export electricity.

17 The Navy and Reclamation must consider granting
18 rights-of-way or permits across lands they manage.

19 The decisions to be made by Western, the D.O.E.
20 Office of Electricity -- office of Delivery and Energy
21 Reliability, Navy, and Reclamation regarding the
22 proposed project will be issued following the final
23 E.I.S. in the form of separate records of decision, and
24 those are by each agency issues their own record of
25 decision.

1 Those records of decision are anticipated to be
2 issued in March of 2007.

3 At this time I'm going to go ahead and call on
4 the people. When you come up to speak, if you could
5 spell your last name for the court reporter and
6 hopefully not face your back to her so she can get down
7 your comments.

8 Cary Meister.

Reference 33 →

9 MR. MEISTER: My name is Cary Meister, C-a-r-y,
10 M-e-i-s-t-e-r.

11 And tonight I am representing the Yuma Audubon
12 Society, as its conservative chair, and I'd like to
13 address four areas of comments and four ways. One is
14 air pollution; another is the flat-tailed horned lizard;
15 a third is the size of the right-of-way; and a fourth is
16 cumulative impacts on the Barry M. Goldwater Range.

33.1 →

17 First in air pollution, in the Executive
18 Summary on page 16 it says that Generadora del Desierto,
19 or G.D.D., would construct the S.L.R.C. Power Center to
20 comply with applicable United States environmental
21 standards in addition to those of Mexico's Instituto
22 Nacional de Ecologia. Well, this is a promise, but
23 where is it enforceable? What happens if the power
24 plant does not meet these standards? I don't see any
25 way in Mexico that the United States government agencies

33.1
cont'd

1 or a U.S. Court could attempt to enforce these
2 standards.

3 In addition, if there are changes in
4 regulations, if a situation comes up where there are new
5 source standards, how could they be enforced?

33.2

6 So I have a concern about the inability, by
7 virtue of this plant being in Mexico, that we can't
8 really enforce the U.S. standards, and, unfortunately,
9 in many cases it becomes necessary for government
10 agencies to step in and enforce these standards when
11 they're violated.

33.3

12 So that's a big concern on my part, along with
13 the cumulative impact of air pollution on Yuma County,
14 part of which already is a PM-10 nonattainment area.

33.4

15 The second area of concern is the flat-tailed
16 horned lizard. And the Environmental Impact Statement
17 is deficiency. I really think it fails to meet the
18 N.E.P.A. requirements because it never considered an
19 alternative that would avoid flat-tailed horned lizard
20 habitat or the flat-tail horned lizard management area
21 in particular. The C.E.Q. regulations require that
22 reasonable alternatives be considered. Considerations

33.5

23 of cost don't have to enter into the consideration of
24 these alternatives, and I really think that there should
25 have been such an alternative, and I believe that I

33.5
cont'd

1 brought up this issue at the scoping session and it was
2 not addressed.

33.6

3 For that matter, the flat-tailed horned lizard
4 management area isn't even shown on the maps. I looked
5 through the maps, I looked through because I want to see
6 where it was going to go through. Finally I pulled out
7 my copy of the flat-tailed horned lizard range
8 management plan and I drew my own lines on the maps so I
9 could see. So that should also be remedied.

33.7

10 Now, one way to look at the impact on the
11 flat-tailed horned lizard in the management area is to
12 say, well, they're following a road that already exists,
13 but there's another way to look at it, and that's one of
14 cumulative impact. And you add the power line, now you
15 add more impact to the flat-tailed horned lizard. The
16 flat-tailed horned lizard has already been impacted by
17 many impacts in this area, including the state prisons,
18 agricultural leases on Arizona state trust lands, roads,
19 the Bureau of Reclamation select disposal sites, and
20 expansion of the cities of San Luis and Yuma. The
21 horned lizard already faces further threats from the
22 proposed area service highway and the proposed City of
23 Yuma landfill site. There would even be a staging area
24 of 200 feet by 400 feet for parking and storing
25 construction materials within the flat-tailed horned

33.8

33.8
cont'd

1 lizard management area in order to build the power line.

2 So these are all severe impacts on a species
3 that's already been severely impacted.

4 Unfortunately, transmission line operators seem
5 to be attracted by these protected areas. This line
6 wants to go through the flat-tailed horned lizard
7 management area. Southern California Edison wants to go
8 through a national wildfire refuge and it also goes
9 through areas of critical environmental concern in
10 California, as well as an area that's designated for
11 protection of the french toad lizard in California. And

33.9

12 so Southern -- San Diego Gas and Electric wants to build
13 their Sunrise Powerlink through the Anza-Borrego State
14 Park and have wilderness de-designated state wilderness
15 in California. So why are all these power line people
16 proposing to go through these protected areas? They
17 seem to see a protected area on the map and that's where
18 they decide they want a power line. They're being
19 protected for a specific reason, and they should be
20 avoided.

33.10

21 The third area I want to address is the size of
22 the right-of-way. Originally the proposal was for a
23 500-kilovolt line which would have required a 200-foot
24 right-of-way. Now the proposal is -- or the
25 environmentally preferred alternative is the

33.10
cont'd

1 230-kilovolt power line with a 150-foot right-of-way.
2 Why is this right-of-way so large? Southern California
3 Edison, on their Palo Verde line, is proposing a
4 130-foot right-of-way for a much longer line, and that
5 is next to an existing line. So I'm not sure of why
6 such a large right-of-way is being required for this
7 power line.

33.11

8 And, finally, I'd just like to briefly mention
9 cumulative impacts on the Barry M. Goldwater Range.
10 Already we have a proposed area service highway. Now we
11 have a proposed originally 500 now 230-kV power line.
12 What you're doing is establishing a corridor which will
13 only invite further incursions on the Barry M. Goldwater
14 Range.

15 So this is not the right place to build a power
16 line. Even though it would only cross part of the
17 Goldwater Range, it would be just west of the Goldwater
18 Range boundary.

19 So there are a lot of concerns about the future
20 and further demands for rights-of-way through the
21 Goldwater Range.

22 Thank you.

23 MR. HOFFMAN: The next person I have is Jim
24 Brown.

Reference 34

25 MR. BROWN: That's me.

1 I'm James A. Brown, United States Air Force
2 retired, former snowbird, now a Yuma resident.

3 When I came in here and I looked at that thing
4 over there, I cringed. I'd like to read to you what
5 I've written and then submit it.

6 This line cuts across two flight paths for the
7 M.C.A.S. auxillary and emergency airstrip. Two of them.
8 So it poses critical danger to aircraft approaching when
9 they are approaching due to an emergency. And by
10 "emergency," I mean a dead stick landing. You have no
11 control. All they can do is guide that thing in there.

34.1 →

12 Yuma pilots can get used to this and adjust
13 but, remember, that range serves both the Atlantic and
14 the Pacific fleet airplanes, and those guys are not
15 familiar like our local guys are.

16 I'd also like you to remember these pilots
17 don't have familiarity, and I'd like you to remember
18 that there are lives of aircrew and multi-million-dollar
19 airplanes that's affected.

20 Thank you.

21 MR. HOFFMAN: Thank you.

22 Bonnie Chandler.

Reference 35 →

23 MS. CHANDLER: I'm Bonnie Chandler, also
24 Mrs. Terence Chandler, and the reason my husband can't
25 be here tonight is he, as we speak -- he's an electrical

1 engineer and he is in Southeast Asia working on some of
2 these very same problems. He works with all the major
3 power companies and others over there.

4 And this is his response that I just edited but
5 he prepared.

6 Response to E.I.S. for San Luis Transmission
7 Line. The introduction of an aboveground, high-voltage
8 transmission system has significant long-term impacts on
9 many aspects of the environment as documented by the
10 information presented in this meeting.

35.1 →

11 What has not been discussed at this meeting is
12 the use of underground transmission systems. An
13 underground system would eliminate nearly all of the
14 long-term environmental impacts. Why has it not been
15 introduced by this organization? Underground H.V.
16 transmission systems are widely used around the world.
17 An example is Singapore, which recently installed an
18 underground 440-kV transmission line that is environment
19 friendly, cost effective, and more reliable than the
20 aboveground transmission lines.

35.2 →

21 Note: This line is not oil filled with flowing
22 oil and is direct burial.

35.3 →

23 While the builders/owners of the San Luis
24 transmission line will object because the initial cost
25 of construction is higher than overhead, the overall

35.4 →

35.4
cont'd

1 lifetime cost is lower due to lower maintenance costs.
2 Therefore, their objective is to lower our property
3 values while maximizing their short-term profits.

35.5

4 We object to the construction of an aboveground
5 transmission line because of the adverse effect on
6 property values, restriction of our views, and long-term

35.6

7 environment impact. We do not object to an underground
8 transmission system. We believe it is the

35.7

9 responsibility of all of our government agencies to
10 protect the environment and local citizens' property
11 versus the short profit interests of a private company.

12 And I have name, address, power quality, and I
13 have extras of these if anybody wants them.

14 Thank you.

15 MR. HOFFMAN: Would you like a copy of that to
16 be attached?

17 THE COURT REPORTER: I have one.

18 MS. CHANDLER: I gave her one.

19 MR. HOFFMAN: That's fine.

20 MS. CHANDLER: I'll leave one for you folks.

21 MR. HOFFMAN: That's fine.

22 I hope I don't mispronounce this, but Bob
23 Wernette.

24 MR. WERNETT: No comments.

25 MR. HOFFMAN: You're gonna pass. Okay.

1 Lucy Shipp.

2 MS. SHIPP: I got my questions answered
3 earlier. Thank you.

4 MR. HOFFMAN: Okay. Those are the people that
5 I have that have asked.

6 Is there anyone else that would like to speak
7 tonight?

8 (No response.)

9 MR. HOFFMAN: We're about ready to close the
10 formal part of the public hearing, so if there --

11 MR. WERNETT: I have a question. I didn't
12 understand. What was the E.T.A. of these poles? When
13 do you think they'll start digging these?

14 MR. HOFFMAN: Again, this isn't -- the formal
15 hearing is not the question and answer period, but there
16 will be people here to talk about that.

17 I do want to remind you, if you want to submit
18 written comments, you can do that. Even if you've done
19 an oral comment, you can submit a written comment also.

20 And I would -- if no one else wants to speak,
21 we'll go ahead and close the formal meeting process, and
22 representatives will be here to answer any other
23 questions that have come up.

24 Thank you for coming.

25 (The formal comment hearing concluded at

1 7:37 p.m.)

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1 STATE OF ARIZONA)
) SS.
2 COUNTY OF YUMA)

3

4 Be it known that the foregoing proceedings were
5 taken before me, CHRISTINE BEMISS, a Certified Court
6 Reporter in and for the State of Arizona; that the
7 proceedings thereto were taken down by me in machine
8 shorthand and thereafter produced under my direction;
9 that the foregoing 23 pages are a true and correct
10 transcript of all proceedings had, all done to the best
11 of my skill and ability.

12 I further certify that I am in no way related
13 to any of the parties hereto, nor am I in any way
14 interested in the outcome hereof.

15 Dated at Yuma, Arizona, this 19th day of
16 December, 2006.

17

18

19

CHRISTINE BEMISS, RPR, CCR
Arizona CCR No. 50073,
California CCR No. 10082

20

21

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San Luis Rio Colorado Project
Draft Environmental Impact Statement
Public Hearing

Comment Reference
Document 36

Thank you for your interest in this Project. Please complete the appropriate sections of this form to be included on the Project mailing list and to provide any comments or questions you would like addressed. You may submit oral comments for the record by filling out a Speaker Form, or written comments in the space provided below. Written comments can be submitted at the Public Hearing, or mailed to the address on the back of this form. Comments must be received by 11:59 p.m. on December 26, 2006, in order to be addressed in the Final Environmental Impact Statement.

I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

James A Brown Maj. USAF (Retired)
Name Organization

[Empty dashed box for comments]

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

36.1 → The line cuts across 2 flight paths for the MCAS auxiliary (and emergency) air strip. So, it poses critical danger to aircraft approaching due to an emergency. Yuma Marine pilots can adjust and become used to this. BUT, remember this range is also used by aircraft from the entire Fleet. These pilots do not have familiarity with all the hazards. There are lives and multi million dollar aircraft to be considered here.

Thank you for your time and interest in the San Luis Rio Colorado Project.

Response to EIS for San Luis Transmission line

37.1 → The introduction of an above-ground high voltage transmission system has significant long term impacts on many aspects of the environment as documented by the information presented in this meeting.

What has NOT been discussed at this meeting is the use of underground transmission systems. An underground system would eliminate nearly all of the long-term environmental impacts. Why has it not been introduced by this organization?

37.2 → Underground HV transmission systems are widely used around the world. An example is Singapore which recently installed an underground 440KV transmission line that is environment friendly, cost effective and more reliable than above ground transmission lines. NOTE: This line is not oil filled with flowing oil and is direct burial.

37.3 → While the builders/owners of the San Luis Transmission line will object because the initial cost of construction is higher than overhead, the overall lifetime cost is lower due to lower maintenance costs. Therefore, their objective is to lower our property values while maximizing their short-term profits.

37.4 → We object to the construction of an above ground transmission line because of the adverse affect on property values, restriction of our views and long-term environment impact. We do not object to an underground transmission system. 37.5 37.6

37.7 → We believe it is the responsibility of all of our government agencies to protect the environment and local citizens' property vs the short profit interests of a private company.

Terence Chandler, Electrical Engineer



San Luis Rio Colorado Project
Draft Environmental Impact Statement
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I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

[Redacted area]

E-mail address

WADE Noble

Yuma Irrigation District

Name

Organization

[Redacted area]

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

38.1 →

move it EAST north of
THE Gila Substation

Thank you for your time and interest in the San Luis Rio Colorado Project.

San Luis Rio Colorado Project
Draft Environmental Impact Statement
Public Hearing

Comment Reference
Document 39

Thank you for your interest in this Project. Please complete the appropriate sections of this form to be included on the Project mailing list and to provide any comments or questions you would like addressed. You may submit oral comments for the record by filling out a Speaker Form, or written comments in the space provided below. Written comments can be submitted at the Public Hearing, or mailed to the address on the back of this form. Comments must be received by 11:59 p.m. on December 26, 2006, in order to be addressed in the Final Environmental Impact Statement.

I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

Joel Lead Rubio

Name

E-mail address

Yuma County LR Planning

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

1) How was the public informed about this proposal?
Were property owners adjacent to the transmission line route notified via mail? Public outreach for a project of this magnitude should entail massive notification (via mail outs) to any and all private property owners adjacent to and along the route of the proposed/alternative transmission line route.

2) The proposed/alternative transmission line route cuts through and encroaches upon (between Co. 14th & 7-8) an area reserved for future residential growth. An alternate route should be considered to minimize any potential conflict between the proposed use and the area reserved for residential growth.

Thank you for your time and interest in the San Luis Rio Colorado Project.

From: Donna J Brown
Sent: Monday, January 01, 2007 4:30 AM
To: wieringa@wapa.gov
Subject: Draft EIS (DOE/EIS-0395)

Mr Wieringa: The following is in regard to the mailed notice concerning your draft EIS on the proposed San Luis Rio Colorado Project. I am assuming that your office already has the written comment I submitted at the briefing here in Yuma, AZ. Following is my re-statement, and an additional thought, for your consideration:

40.1 → The current proposal would have a killing field high voltage hazard crossing the flight pattern of an emergency airstrip that exists there primarily for the use of Marine and Navy aircraft operating over the gunnery range. It is also available to any other aircraft in trouble that cannot make it to the Yuma airport. Local pilots are familiar with it's existence and are used to seeing it there....BUT, this gunnery range is used by pilots from both the Pacific & Atlantic fleets for regularly scheduled training operations. I'm sure that strip is in the NOTAMS used by visiting airmen. However, a pilot in need of a place to put down a crippled aircraft should not have to be faced with death by electrocution. When he has no power the choices are limited, and the time for action is very short.

40.2 → Please do not erect such a barrier to the airmen that might have to save themselves and their aircraft by use of this emergency strip.

40.3 → My alternative suggestion is to go underground. This alternative is used throughout the world for transmission lines. ...There is even a possibility of saving a bundle of construction costs: by combining the construction effort with the crews that will be building the limited access highway that will go from the new commercial port of entry near San Luis over to the Highway 8 Freeway, A lot of diggin' & dirt movin' is going to be taking place, right along somewhat the same route your company is proposing. Moreover, doing so might possibly enhance future servicing of the transmission lines by virtue of better access thereto (from the hiway)..

Thanks for the opportunity to "say my piece".

JAMES A BROWN



San Luis Rio Colorado Project
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I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

12/15/06

John Colvin

E-mail address

John F Colvin A.

Name

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

41.1 →

This "Project" should not be considered as presented. Involvement of foreign interests in United States energy management is unacceptable. This particularly applies to location of electrical energy sources in Mexico and generally to Oriental influences for construction of generation facilities associated with transmission of electricity produced in Mexico.

41.2 →

Exporting natural gas from the United States to Mexico, converted to electricity, then imported from Mexico back to the U. S. isn't reasonable. The generation facility should be in the United States for numerous economic, environmental, financial, social, political and locally acceptable reasons. Additionally, there would be no assurances that the power would be made available to the United States grid at all times and/or in sufficient quantity to meet our needs.

41.3 →

Alternatively, construction of such plant in the U. S. is more feasible in the general area of Yuma, Arizona. The gas line is here. The proposed link(s) to the U. S. grid are in place and readily accessible. No international negotiations to export gas would be necessary. No negotiations to import electrical energy would be necessary. Land is available.

Thank you for your time and interest in the San Luis Rio Colorado Project.

San Luis Rio Colorado Project
Draft Environmental Impact Statement
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Thank you for your interest in this Project. Please complete the appropriate sections of this form to be included on the Project mailing list and to provide any comments or questions you would like addressed. You may submit oral comments for the record by filling out a Speaker Form, or written comments in the space provided below. Written comments can be submitted at the Public Hearing, or mailed to the address on the back of this form. Comments must be received by 11:59 p.m. on December 26, 2006, in order to be addressed in the Final Environmental Impact Statement.

I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print 12-18-06

E-mail address

WILLIAM & CLARA EADES

Name

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

we do not want the Power Lines
going on our property or near it.

we have 7 $\frac{3}{4}$ acres and we want
to Build on it, we're Concerned about
the Health problems it will create.

we were forced to sell to ADOT
for the ash Highway and were not
given the Fair Market Price for our
land. So we don't want the same
prox you. you will run down
the value of our property if you
come on the west side of ash Highway.

we feel that you should go underground
with this and not put the peoples Health at
risk.

Thank you for your time and interest in the San Luis Rio Colorado Project.

William Bay Eades
Clara Eades

From:
Sent: Monday, January 08, 2007 2:11 PM
To: holt@wapa.gov; wieringa@wapa.gov
Subject: RE: power lines

TO: Mr John Holt, Environment Manager
Mr. Mark Wieringa, NEPA Document Manager

From: Ray & Clara Eades



43.1 => We **DO NOT WANT** the power line to come on the west side of ASH Highway.
We have land there and that would run down the value of our land.

43.2 => We want to build on our land and do not want to live that close as we feel that is a health hazard.
We are **against** the power lines on the west side of ASH Highway.
We mailed you a letter in December stating our concerns about these issues.

Thank You,

WILLIAM and CLARA EADES

Comment Reference Document 44

San Luis Rio Colorado Project Draft Environmental Impact Statement Public Hearing

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I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

E-mail address

Brandon Easterday

Name

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

- 44.1 This letter is in regards to Yuma and our National wildlife refuge being SOLD OUT to an LLC. Yet again Yuma is about to be a target place to bring unwanted utilities that serve no purpose/benefit to the Yuma area and its surrounding refuge. This project is not supported by Yuma's citizens and should be taken into great consideration while Yuma is about to have huge power lines running to other power grids. It looks like America is going to need a crutch soon, seeing how we now have no desire to be a self sufficient country and need to get power from a foreigner country. If people want to sell out our country please leave Yuma and surrounding refuge out of it. Please get out of the mindset of making your money and don't sell out Yuma's farmland to pollution and our refuge to become a power source.

Brandon Easterday

Thank you for your time and interest in the San Luis Rio Colorado Project.

San Luis Rio Colorado Project
Draft Environmental Impact Statement
Public Hearing

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Thank you for your interest in this Project. Please complete the appropriate sections of this form to be included on the Project mailing list and to provide any comments or questions you would like addressed. You may submit oral comments for the record by filling out a Speaker Form, or written comments in the space provided below. Written comments can be submitted at the Public Hearing, or mailed to the address on the back of this form. Comments must be received by 11:59 p.m. on December 26, 2006, in order to be addressed in the Final Environmental Impact Statement.

I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

Donalyn Easterday

Name

E-mail address

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

A "Limited Liability" Company is going to put a plant in Mexico.

45.1 → The power is "NOT" for Yuma but so the LLC can make money selling power into the power grid. It is to be sold to other cities and states.

What is in it for Yuma?

45.2 → 1. Big ugly power towers cutting across the Mesa and running through the beautiful KOFA National Wildlife Refuge.

45.3 → 2. Possible Pollution of both Mexico and Yuma

45.4 → 3. Esthetic loss

Because of California's strict environmental laws, all these "CANAMEX Corridor" projects

Thank you for your time and interest in the San Luis Rio Colorado Project.

45.5

are being forced on Yuma. This particular project is to put money in the pockets of a select few at the expense of the county and the people of Yuma and Mexico.

45.6

This is not being done by regular due process, but being done by "questionable" Executive Orders. Is this good for the sovereignty of our Nation?

Please fold in thirds, staple, and affix postage.

PHOENIX AZ 850

21 DEC 2006 PM 8 L



Mr. John Holt, Environmental Manager
Western Area Power Administration
P.O. Box 6457
Phoenix, AZ 85005-6457

85005x6457



San Luis Rio Colorado Project
Draft Environmental Impact Statement
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Thank you for your interest in this Project. Please complete the appropriate sections of this form to be included on the Project mailing list and to provide any comments or questions you would like addressed. You may submit oral comments for the record by filling out a Speaker Form, or written comments in the space provided below. Written comments can be submitted at the Public Hearing, or mailed to the address on the back of this form. Comments must be received by 11:59 p.m. on December 26, 2006, in order to be addressed in the Final Environmental Impact Statement.

I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

E-mail address

W. Ryan Easterday

Name

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

46.1 ->

My comments are in regards to the proposed project to cross the Kofa National Wildlife Refuge with a power corridor. First, use of this land should never be used except for public use. Here a public use already exists. The Kofa exists for us and future citizens to enjoy scenery of the Sonoran landscape. With urban sprawl reaching across southern Arizona it is one of our only protected areas. Second, there is no benefit to the residents of this state. The only benefit is to an LLC trying to make money at the expense of this Country's natural heritage. In short, I don't think it should go anywhere through here.

46.2 ->

W. Ryan Easterday

Thank you for your time and interest in the San Luis Rio Colorado Project.

Comment Reference
Document 47

San Luis Rio Colorado Project
Draft Environmental Impact Statement
Public Hearing

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I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

Name Melinda Fran E-mail address _____
Organization _____

[Empty dashed box for comments]

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

47.1 → The powerline project going through the Kofa National Wildlife Refuge is extremely undesirable from my point of view. First of all, I think, big power lines are ugly. Secondly, Kofa Wildlife Refuge is noted for its beautiful desert scenery. It is also a very popular site for Yuma hunters, wildlife enthusiasts, and campers.

47.2 → If we absolutely must have this project, use the western edge of the Barry Goldwater Range which is public land already. The military uses this public land for their training. After all our country has very little privately held property, thus, it needs to remain untouched by this privately owned LLC that serves no useful benefit to our country. It is only a detriment.

47.3 → In conclusion I see this project as severely damaging the natural beauty of our wonderful state and crippling tourist dollars that many of our citizens count on for their abhorred income.

Thank you for your time and interest in the San Luis Rio Colorado Project.

San Luis Rio Colorado Project
Draft Environmental Impact Statement
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Thank you for your interest in this Project. Please complete the appropriate sections of this form to be included on the Project mailing list and to provide any comments or questions you would like addressed. You may submit oral comments for the record by filling out a Speaker Form, or written comments in the space provided below. Written comments can be submitted at the Public Hearing, or mailed to the address on the back of this form. Comments must be received by 11:59 p.m. on December 26, 2006, in order to be addressed in the Final Environmental Impact Statement.

I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

E-mail address

RONALD W. TERRY

Name

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

48.1 We are unequivocally opposed to the 500-KV transmission line running through the Goldwater Range. The Goldwater Range is a National Treasure that needs to be protected for use by our Armed Forces and ultimately the protection of every citizen of our country.

48.2 We bought our property for the unobstructed view we have to the East of the Telegraph Mountains. We do not want to get up every morning with a view of 175 foot transmission lines. This project will have an adverse affect on our

48.3 property value and over time, our health. Please give

48.4 me a good reason why this line couldn't be placed

48.5 underground, other than the increased cost for the developer. Please — no more encroachment, no reduction of our view to the East and reduction of our property value.

Thank you for your time and interest in the San Luis Rio Colorado Project.

From: Terry, Wayne
Sent: Monday, January 08, 2007 12:48 PM
To: wieringa@wapa.gov
Cc:
Subject: North Branch Resources 500kv Transmission Line

Sir,

- 49.1 ➤ My wife and I are unequivocally opposed to the 500kv transmission line running from Mexico to the Gila Substation for Western Area Power Administration. This line would run about six hundred feet from our eastern property line on Avenue 5E. Not only would it be an eye-sore
- 49.2 ➤ obstruction of our view of the Telegraph Mountains, but also an encroachment on the Barry M.
- 49.3 ➤ Goldwater Range, a National Treasure that should be protected for future generations. This
- 49.4 ➤ project would also adversely affect the property values of those of us who chose our properties for the views of desert and mountains.
- 49.5 ➤ This line could be buried underground with minor additional costs to the developers. Buried lines such as these are common in other countries and require less maintainance than overhead lines.
- 49.6 ➤ We are also concerned about health issues that go along with living in close proximity to high voltage lines.

Respectfully,

Ronald W. Terry
Nancy J. Terry



From: Terry, Wayne
Sent: Monday, January 08, 2007 1:03 PM
To: holt@wapa.gov
Cc:
Subject: 500kv Transmission Line

Sir,

50.1 => We are opposed to the North Branch Resources transmission line from Mexico to the North Gila Substation in Yuma. This transmission line would run through the Barry M. Goldwater Range, a
50.2 => further encroachment to the Area Service Highway which will also run through the range.

50.3 => This transmission line with its 175 foot towers would not only obstruct our views of the desert and mountains to the east, but would also obstruct low flying aircraft that use the range in training
50.4 => missions to protect our country.

50.5 => The transmission line would also adversely affect our property values. We would not be opposed
the the line running underground. These lines are routinely run underground in other countries
50.6 => and could easily be done here. It would be better for the environment and require less
maintenance over time.

Sincerely,

Ronald W. Terry
Nancy J. Terry



San Luis Rio Colorado Project
Draft Environmental Impact Statement
Public Hearing

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I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.

Please Print

E-mail address

DAVID & Betty Thom

Name

Organization

Please indicate any questions, comments or concerns you have about the Project in the comment section below (continue on back if necessary).

51.1 → I AM AGAINST ANY POWER POLES GOING IN EAST
OF 4E ON THE BARRY M GOLICWATER RANGE.
51.2 → IF THEY ARE UNDERGROUND I HAVE NO
PROBLEMS WITH THAT. THIS IS ENCROACHMENT
ON A MILITARY RESERVATION. WE HAVE SO
LITTLE ^{BASES} LEFT. I WILL FIGHT THIS!

Thank you for your time and interest in the San Luis Rio Colorado Project.

Date: Tue, 2 Jan 2007 10:26:40 -0700

Subject: Draft EIS(DOE/EIS-0395

From: "Patty Wilbur"

To: "John HOlt"

Comment Reference
Document 52

Dear Mr. Holt,

52.1 → I would be in favor of this project if you would be willing to place all lines underground.

Sincerely,

Rob Wilbur

-----Original Message-----

From: Carolyn Strickroth

Sent: Monday, January 29, 2007 10:00 AM

To: Mark Wieringa

Subject: Proposed San Luis Rio Colorado Project

Mr. Wieringa,

- 53.1 → I received the detailed maps for this project. I noticed with great interest the "pink" area which is the "route alternative". This goes right over the top of my house. Are you proposing to remove the homes that are in this area if you choose the alternative route? What type of
- 53.2 → poll structures will you be using. The regular metal poles or the large frames that were fashioned after a dress makers form?
- 53.3 → I will STRONGLY oppose the alternative route and will contact all of my neighbors to also oppose it since the location of the project, in the
- 53.4 → pink area, will greatly REDUCE our property values.

Thank you,
Carolyn Strickroth



San Luis Rio Colorado Project Draft Environmental Impact Statement

Public Comments

**Additional Written Comment Received After
January 29, 2007**

Donald Begalke

February 1, 2007

Mr. John Holt, Environmental Manager
Western Area Power Administration, Desert Southwest Region
P. O. Box 6457
Phoenix, Arizona 85005-6457

Received the SLRC Booklet on 01/09/07; have read, reread and conducted some investigation. Disappointed, this Draft has omissions, incompletions and misinformation.

COMMENTS ON THE SAN LUIS RIO COLORADO PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT SUMMARY, DOE/EIS-0395.

54.1 → APPLICANTS: North Branch Holding, LLC's subsidiaries North Branch Resources LLC and Generadoradel Desierto S.A. de C.V. are listed as Applicants. Western fails to provide details in this Draft about NBH, NBR and GDD, especially "who" plus the histories in the industry doing business in the U.S.A. Additionally, why should Arizona be impacted by a project that is Mexican based? Investigation at the Arizona Corporation Commission results that the State agency has "no filings at all" from NBH, NBR nor GDD. ← 54.2 ← 54.3

54.4 → Regarding this Draft's Page I, the first sentence of the second paragraph reports that Western will be owner of the proposed U.S. portion of the project. That makes Western a Co-Applicant of the Project. Western's Draft fails to explain what law(s) allow an applicant to write an EIS. Subsequently, is the Public presented an unlawful document? "Self-servicem" also prevails, and this EIS should be ended with this Draft. The SLRC Project should not be approved.

54.5 → S.1 PURPOSE AND NEED FOR AGENCY ACTION: Homeland Security is not included. Western's omission of a very important federal agency in this Draft is very disturbing Does that fact mean that Western and DOE have not updated their EIS procedures? This EIS lacks ensuring U.S. security, and DOE/Western can not provide and guarantee U.S. security.

54.6 → Also very disturbing is the omission of the Arizona Corporation Commission from "S.1".

54.7 → S.2 APPLICANT'S PURPOSE AND GOALS: Western uses an outdated 2002 ACC assessment in this Draft. Not only was the 2002 report superceded by the 2004 report, but the 2006 Biennial Transmission Assessment Draft (the final assessment is dated November 30, 2006) was available for months at the ACC for Western to use in preparing this Draft EIS, published what date in October, 2006? Regarding RMRs, is not Western's own Gila Substation one of them (see P.1 of this Draft, Sentence 6 inclusive of "require an expansion of Gila Substation")?

54.8 → The last sentence of S.2's second paragraph does not demonstrate NBH's consideration of energy needs in Sonora and Baja, Mexico. Knowing that, Western's consideration to transmit Mexican electricity, over a line not earned/paid for by Western, is veiled in this Draft EIS - self-service!

54.9 → S.3 PUBLIC INVOLVEMENT: Other than "Landowners" at Booth Machinery - see Table S-1 - how many individuals of the general Public participated in the presentations on SLRC? Was the word "condemnation" used in paper ads and Western's NOIs? Where are copies of newspaper announcements and NOIs in this Draft? This EIS should end today because Western failed to fully announce all impacts, positive and negative, to the Public.

54.10

→ Table S.2 regards scoping comments, but specifically “by whom” and were they submitted verbally at a meeting or in writing? During 2006 I participated in a BLM process for an EIS, and everyone could know the complete comments of everyone else. In any sized publication of this Draft, Western should not disservice the Public. In the “Treatment” column of the table are numerous sections - ex. “3.6 and 4.6” or “chapter 5”. How does Western expect Public Comment on numbers? This Draft EIS Summary is very deficient!!

54.11

→ S.4 ALTERNATIVES: This section of the Draft does not address an alternative from the SLRC Power Center to the Sonora Substation, Az. - about (?) 5 miles in the U.S. If “reliability” would be needed between Mexico and the U.S., SLRC-to-Sonora makes common sense. It would also show cooperation, not only with the respective Nations by NBH, NBR and GDD but also with the local Arizona utility(ies) who do not need interference(s) in their businesses by the NBR (should that include DOE and Western?). It would avoid the horrible takings by condemnations of agricultural employment-production lands and private-property lands.

54.12

→ This section does not address an underground transmission routing; the advantages exceed the additional costs. This section also does not address the FERC ruling that government lands be connected for transmission routings; no evidence exists that FERC’s directive was applied. Thus, the “No Action Alternative” is the only common sense outcome of this Draft EIS.

54.13

→ S.5 IMPACTS: This section does not address other alternatives noted in “S.4”.

54.14

→ CONCLUSION: After receiving this Draft, I first looked at the maps, Figures S-1 and S-2, on Pages VI and VII, where the obvious, common sense result is shown - the Sonora Substation, which should be the terminating point in the U.S. for any line from the SLRC Power Center. With that, seeing the agricultural and private lands severely impacted above County 14th Street, I recalled the FERC directive. As I then began reading Page I and subsequent pages, the proposal unraveled itself. However, along the way I did make special notations: (1) “City of Yuma opposes the proposed route”, (2) “Recommend routing the transmission line through barren land, unusable land and avoiding developed areas”, and (3) “Consider a 230kV that would tie into the existing Sonora Substation”. On this SLRC Project Application, DOE/EIS-0395, Western must say “NO!!” to NBR and GDD.

Respectfully submitted,

Donald G. Begalke



copies- others, and file

APPENDIX B

UNDERGROUND TRANSMISSION TECHNOLOGIES REPORT AND PDC QUALIFICATIONS

BUDGETARY COST ESTIMATES FOR
PROPOSED SAN LUIS RIO COLORADO PROJECT
230 KV UNDERGROUND TRANSMISSION TECHNOLOGIES

March 8, 2007

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COST ESTIMATES FOR PROPOSED SAN LUIS RIO COLORADO PROJECT 230 KV UNDERGROUND TRANSMISSION TECHNOLOGIES

1.0 Executive Summary

1.1 Purpose

The purpose of this report is to describe 230 kV underground transmission technologies for constructing a one-mile underground transmission segment and budgetary cost estimates for construction of the line. The report also addresses construction and permanent right-of-way requirements for constructing an underground segment of a 230 kV transmission line.

1.2 Underground Transmission Technologies

Four types of underground transmission cable systems (extruded dielectric, high-pressure fluid-filled, self-contained fluid-filled, and gas-insulated line) are commercially available for 230 kV underground transmission lines. All of the four cable system types have been utilized by utilities to construct 230 kV underground lines, and each of them has certain advantages and disadvantages.

The extruded dielectric and pipe-type cable systems were selected as the most suitable technology for the proposed San Luis Rio Colorado Project because they are used for most of the current 230 kV underground transmission lines in North America.

Gas-insulated line was also considered as a possible candidate because of its high power transfer capability. However, this option was not given further consideration because it is generally more expensive than the other options and the only commercial installations outside of substations are in tunnel installations.

1.3 Conclusions

The technical part of the analysis concluded that the power transfer requirements for the one-mile long underground transmission line can be achieved using self cooled 230 kV extruded dielectric transmission cables or force cooled high-pressure fluid-filled pipe-type cables.

Budgetary cost estimates for both 230 kV transmission cable systems were approximately \$15.3 M.

1.0 Introduction

The proposed alignment for the 230 kV San Luis Rio Colorado transmission line alternative is in close proximity to an auxiliary air field and may pose obstruction to flight paths if an overhead transmission line is constructed in this area.

Power Delivery Consultants, Inc. (PDC), an engineering firm that specializes in the design and specification for underground transmission systems, was assigned the task of preparing a conceptual design for a one-mile segment of the 230 kV transmission line and preparing budgetary cost estimates for construction of the line.

This document summarizes 230 kV underground transmission line options based on conditions that currently exist. The report presents general aspects of underground transmission technology with emphasis on technologies and construction practices that are applicable for the proposed San Luis Rio Colorado Project.

2.0 General Discussion

The number of overhead transmission lines greatly exceeds the number of underground transmission lines that have been constructed in North America and the rest of the world. This is, in general, due to economic considerations (i.e. the costs for overhead transmission lines, in most cases, are significantly less than those for similar capacity underground transmission lines). However, there are distinct advantages and disadvantages for both overhead and underground transmission lines that should be considered when planning a specific transmission line.

The two primary advantages of underground transmission compared to overhead lines are:

- Underground transmission lines typically have less visual impact than overhead lines
- The right-of-way requirements for underground transmission lines are generally less than for comparable overhead lines

Underground transmission lines can also be constructed for some applications where it is not technically feasible to construct an overhead line. However, most of these special applications for underground transmission are for water crossings.

In addition to higher installed costs, some additional disadvantages of underground transmission lines are:

1. Poor accessibility – After construction is completed, it is more difficult to gain access to the underground transmission cables for repair or maintenance.
2. Longer repair times - Although transmission cables have overall reliabilities that are similar to those for overhead transmission lines, typical times for repairs are much longer than for overhead lines. This disadvantage is closely related to the preceding disadvantage.

Underground transmission lines can generally be classified into four categories that are discussed in following sections of this document. These are:

1. High-pressure fluid-filled (HPFF) cable systems, also called pipe-type cables
2. Self-contained fluid-filled (SCFF) cable systems
3. Extruded dielectric or solid dielectric cable systems

4. Gas-insulated line (GIL)

2.1 Feasibility

In most cases it is technically feasible to construct 230 kV underground transmission lines, using one or more of the four cable system types listed in the previous section, that have the same power transfer capability as overhead transmission lines. However, in most cases it costs more to build the underground transmission line alternative. This is primarily due to the relative simplicity of overhead transmission lines compared to underground cables. In some cases, only the highest capacity (and most expensive) gas-insulated lines can match the power transfer capabilities of overhead transmission lines. It is technically feasible to increase the number of parallel cables per phase to match the power transfer capability of an overhead line, if sufficient right-of-way width is available. However, this approach often makes the underground transmission alternative uneconomical.

Another important factor concerning the feasibility of underground transmission line construction is the local terrain. Most underground transmission lines are constructed in cities or under bays or rivers where the terrain is relatively flat and there are roads or shipping channels that will accommodate delivery of the large, heavy reels of cable and concrete splice vaults.

2.1.1 Power Transfer Requirements

The proposed San Luis Rio Colorado transmission line would be designed with two 230 kV circuits. Each circuit would be rated at 800 MW continuous capability for a total capacity of 1600 MW. Each circuit would have a 10% overload capability for short term contingencies. For a loss of either circuit, the remaining circuit would be capable of carrying 880 MW for 30 minutes.

With the exception of GIL, it is often difficult to match the power transfer ratings of overhead transmission lines with the commonly used types of underground cables (i.e. HPFF, SCFF, and extruded dielectric cables). This is due to the following reasons.

- Convection and radiation cooling of overhead conductors is much more effective in dissipating heat generated by overhead line conductors than conducting heat through an underground cable's high voltage insulation and the surrounding earth. All of the heat generated by an underground cable must be conducted through the soil that surrounds an underground cable and eventually dissipated to the atmosphere.
- Another significant power transfer limitation for oil-paper insulated cables (conventional HPFF and SCFF cables) is dielectric losses. Dielectric losses are the no-load losses created in the high voltage insulation due to the AC electric field. Dielectric losses increase with the square of the operating voltage and create losses that are a significant percentage of the current related losses for EHV system voltages.

2.2 Reliability

Outages on overhead lines are primarily caused by the following:

- Insulator flashovers due to lightning strikes
- Accidental contact with the high voltage conductors
- Flashovers due to insulator contamination

Most of the overhead line outages are of a temporary nature and service can usually be restored by automatic or manual reclosing of circuit breakers after the fault is cleared. Repair times for outages that are not resolved by re-energizing the line are typically less than ten hours in duration.

On the other hand, outages on underground transmission cables are primarily caused by dig-ins (i.e. cable damage due to excavation in the vicinity of the underground line). Consequently, the damaged cables must be exposed and time-consuming repairs must be completed before the cables can be returned to service. Typical repair times for underground transmission forced outages are one to three weeks.

Typical forced outage rates for underground transmission lines are lower than those for overhead lines. This is because underground lines are not exposed to storms. However, the combined effects of forced outage rates and repair times must be taken account when comparing the overall reliability or availability of both types of transmission lines. When this is done, the availability of overhead lines is typically higher than those for underground lines.

2.3 Construction Methods

Construction methods for underground transmission lines can be divided into two general categories:

1. Conventional, open-trench construction methods whereby trenches, typically with depths ranging from 4 feet to 20 feet are dug and the transmission cables are either directly buried or placed in concrete encased duct banks.
2. Trenchless construction methods that use boring machines to create a tunnel in the earth, typically at depths of greater than 20 feet. The transmission cables are subsequently pulled into the bore or tunnel.

In numerous cases a combination of both of these construction methods have been used to construct a given underground transmission line.

Conventional, open-trench construction is used for the vast majority of underground transmission line installations because it is less complex than trenchless methods, requires commonly available construction machinery and skills, and is less expensive than trenchless construction in most cases.

There are two different variations of open-trench construction for underground transmission lines. These are:

2.3.1 Concrete encased ductbank installation

Concrete encased duct banks (Figure 1) are the most commonly used construction for underground transmission lines in North America. In this type of construction, a relatively short (several hundred feet) section of trench is opened, conduits are placed in the trench with plastic spacers every 10 feet to maintain conduit spacing, concrete is poured around the cable ducts, and the trench is backfilled with native soil or a special thermal backfill.

The primary advantages of concrete encased ductbank construction are:

- Traffic disruptions can be minimized in city streets by opening relatively short (several hundred feet) lengths of trench
- The concrete encasement provides good mechanical protection from dig-ins
- The ducts facilitate removal of the cable for repairs or future replacement with higher capacity transmission cables

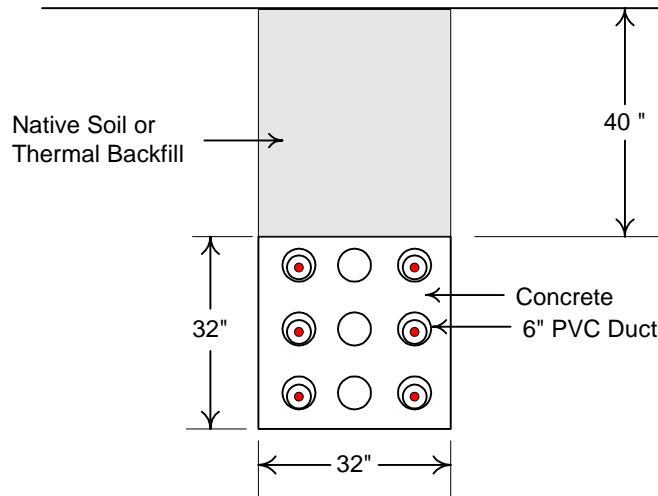


Figure 1. Typical concrete encased duct bank

The disadvantages of concrete encased duct banks are:

- The airspace between the cables and the PVC conduits makes it more difficult to dissipate heat generated by the cables. The increased thermal resistance, in turn, decreases the power transfer capability of the transmission cables.
- The unit cost for ductbank installations are generally higher than for direct buried cable installations.
- Total construction time is longer for ductbank installations compared to direct buried installations.

2.3.1 Direct buried installations

Direct buried cable installations (Figure 2) are commonly used for most transmission cables in Europe and the Near East, but their applications in North America are usually limited to rural areas with dedicated right-of-ways. In direct buried installations, relatively long trenches are dug, the bottom of the trench filled with bedding sand, the cables are laid or pulled into the trench, and the trench is backfilled with native soil or a special thermal backfill.

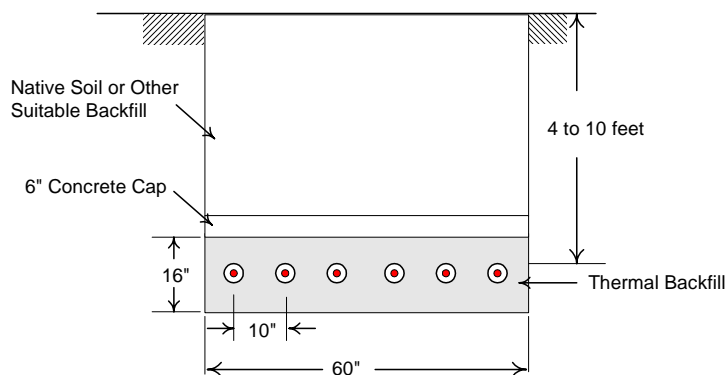


Figure 2. Typical direct buried cable installation

The primary advantages of the direct buried construction method are:

- Construction costs are lower than for concrete encased ductbank installations
- The power transfer capability of a given cable size is higher, compared to concrete encased ductbank installations
- Project completion time is lower than for duct bank installations
- Effectively eliminates cable downhill ratcheting on steep slopes

The disadvantages of the direct buried construction method are:

- Cable replacement for repair or circuit uprating is not economically feasible
- Dedicated right-of-way is generally required
- Long open trenches are required but difficult to obtain in most urban areas

2.4 Current Trends in Underground Transmission

The current trends in 230 kV underground transmission cable design and construction practices are summarized in the following sections.

Internationally there has been a definite trend to select extruded dielectric transmission for new underground transmission lines with system voltages up to 400 kV. This general trend to adopt extruded dielectric cables in place of SCFF cables was initiated by France and subsequently followed by most European countries. 400 kV extruded dielectric cable systems have been installed in Denmark, Germany, Great Britain, Spain, Korea, and France. Japan and China have installed short lengths of 500 kV extruded dielectric cable for approximately eight to ten years and Japan constructed the first and only long distance 500 kV XLPE underground transmission line¹ in 2001.

There has also been a trend in North America to switch from HPFF cables to XLPE cables for system voltages up to 345 kV. This change has been primarily due to environmental concerns associated with dielectric fluid leaks and the greater complexity and maintenance requirements associated with HPFF cable systems. In general, the switch to extruded dielectric cables in North America has lagged that in Europe and Asia by more than a decade. However, this time lag in switching to EHV extruded dielectric cable systems in North America may be decreasing with the change to deregulation of the electric utilities. The first short 345 kV extruded dielectric cable systems in North America were constructed in 2002. The first major 345 kV XLPE in the US was completed in 2006. Currently there are several major 345 kV XLPE transmission cable projects in the construction or final design stages. These are in southwestern Connecticut, Chicago, and Long Island.

Two 275 kV GIL circuits two miles in length were installed in common tunnel in Japan. These 275 GIL circuits were commissioned in 1998.

The utilities in France, Germany, and Switzerland have also shown a strong interest in the use of 400 kV compressed-gas underground transmission lines. However, the only commercial application to date has been a short dip in a 400 kV overhead line in Geneva Switzerland.

¹ H. Ohno, S. Sakuma, et. al., "Construction of the World's First Long-Distance 500 kV XLPE Cable Line", CIGRE Paper 21-106, presented at Paris 2000 Session.

3.0 Summary of Underground Transmission Technologies

There are four types of high voltage cable systems that are available for constructing 230 kV underground transmission lines. All four types of underground transmission technologies are commercially available and most have successfully passed long-term qualifications tests.

3.1 High-Pressure Fluid-Filled (HPFF) Cable Systems

This type of cable, which is also called pipe-type or high-pressure oil-filled cable, has historically been the most popular transmission cable in the US. It has been used for approximately 80 to 85% of the transmission cable in this country. In this design, the three high-voltage cables are contained in a coated and cathodically protected steel pipe. As shown in Figure 3, each cable has a copper (or sometimes aluminum) conductor, high quality kraft paper or, more recently laminated paper-polypropylene (PPP) insulation, outer shielding, and skid wires to protect the cables as they are pulled into the pipe.

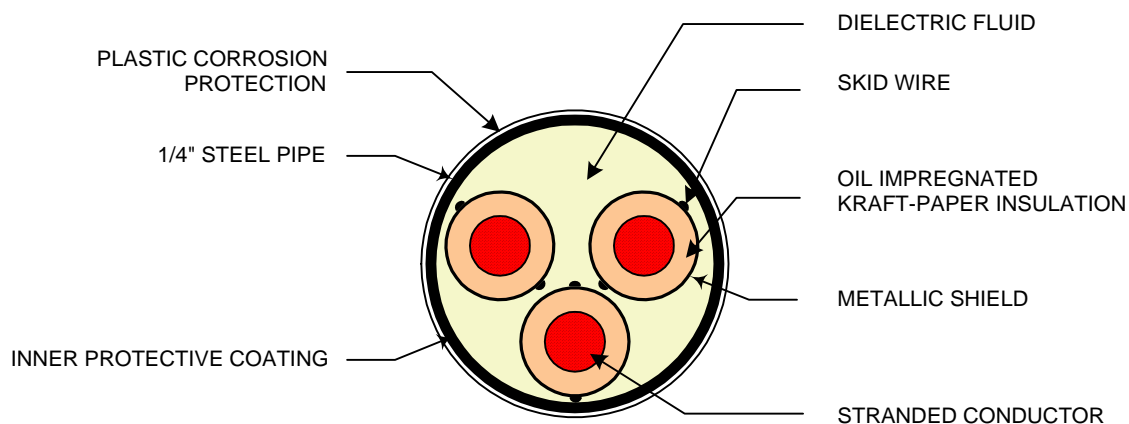


Figure 3. Cross section of typical HPFF transmission cable.

The pipe provides mechanical protection, prevents the ingress of moisture, and is a pressure vessel for maintaining the 200 psig nominal operating pressure on the dielectric fluid that surrounds the cables in the pipe. The primary function of the high pressure dielectric fluid surrounding the cables is to insure that there are no electrical discharges in the oil impregnated paper insulation. This is due to the fact that the high pipe pressure causes any gas voids in the insulation to be compressed and eventually absorbed by the dielectric fluid. The cable is designed with such high electrical stresses that discharges and eventual breakdown will occur if there is a loss of pressure. The dielectric fluid may also be circulated and cooled to increase the power transfer capability of the cable system by up to 140% of the self-cooled ratings.

A pressurizing plant is installed to maintain dielectric fluid pressure under all load conditions. Therefore, the fluid reservoir in the pressurization unit (sometimes called pumping plant) must be sized such that it can accommodate the dielectric fluid which flows back into it from the cable pipe when the cable is operating at maximum operating temperature. At the other extreme, the reservoir must contain some reserve fluid when the cable is at its lowest temperature and the dielectric fluid flows back into the line pipe. Both mineral (petroleum base) oils and synthetic dielectric fluids have been used for the pipe filling fluid. Currently, however, HPFF cable systems use synthetic fluids because of their superior electrical characteristics. These synthetic fluids are either polybutene or alkylbenzene or a mixture of both.

The maximum distance between splices, typically several thousand feet, is usually determined by the maximum pulling tension that may be placed on the cables when they are pulled into the pipe. The maximum length that will fit on a reel sometimes governs.

There are two key maintenance items on this type of cable system that are necessary to insure that it will operate reliably for 40 or more years. First, the fluid pressurization plant must be checked on a routine basis to make sure that there are no fluid leaks, and that the controls and equipment are functioning properly. The second very important maintenance item is checking that the cathodic protection rectifier and corrosion protection coating are functioning properly.

HPFF cable systems with system voltages ranging from 69 kV up to 345 kV have been in commercial operation for over 35 years. HPFF cable systems with rated system voltages up and including 765 kV are commercially available and have passed long-term qualification tests².

The primary advantages of this type of cable system are:

- It has proven to be a very reliable system since it was first developed over 50 years ago. The oil-impregnated paper tape construction is more forgiving of minor manufacturing defects than extruded dielectric insulation systems.
- In urban areas it has the advantage that streets are open just long enough for welding and burying the cable pipe.
- The steel pipe, which encloses the cables, offers mechanical protection with no added cost.
- The pipe facilitates removal and replacement of the cable if necessary. With the recent development of a new generation of smaller diameter paper-polypropylene-paper (PPP) insulated cables, this presents the possibility of upgrading to a higher voltage level with the same pipe.
- The self-cooled power transmission capability can be significantly increased by cooling and circulating the dielectric fluid inside of the pipe.
- There is domestic supply of this type of cable up to 500 kV, and US-made PPP cable has passed industry tests for system voltages up to 765 kV.
- The external magnetic field, which is an environmental impact issue, is significantly lower than any other form of high voltage power transmission.

The primary disadvantages of HPFF underground transmission system are:

- The larger volume of dielectric fluid in the cable pipe means that there is the potential for a larger release to the environment. This is of particular consequence to underwater cables.
- The cable system requires more maintenance than extruded dielectric cables due to routine maintenance associated with the fluid pressurization plants and the pipe cathodic protection equipment.
- The cable system must be segregated into multiple hydraulic sections for elevation changes greater than 300 to 400 feet due to the hydraulic head pressure of the pipe fluid and operation and maintenance considerations.
- The cable system requires a number of hours to restore service if there is ever a total loss of dielectric fluid pressure.

² E.M. Allam, J.H. Cooper, and J.F. Shimshock, "Development and Long-Term Testing of a Low-Loss 765 kV High Pressure Oil-Filled Pipe Type Cable", CIGRE Proceedings of the 27th Session, August 1978, Paris France, Paper No. 21-08.

- The current carrying capacity of the cable system is lower than the other types of cable systems with the same conductor size due to the close proximity of the conductors and magnetic losses in the cable pipe.
- Relatively high charging current and dielectric losses.
- The availability of skilled cable splicers for this technology is becoming a problem.

In summary, the HPFF transmission cable technology is a viable candidate with a proven performance record for use to construct underground transmission lines with system voltages of 230 kV, 345 kV, and 500 kV with modest power transfer requirements.

3.2 Self-Contained Fluid-Filled (SCFF) Cable Systems

This type of cable, which is sometimes simply called self contained cable, consists of three independent cables as shown in Figure 4. The cable for each of the three phases consists of a hollow conductor, which is filled with dielectric fluid, high quality kraft paper (or PPP) insulation, outer shielding, and a lead or aluminum sheath which is covered by a plastic (polyethylene or PVC) jacket. In this construction the metallic sheath serves both as a hermetic moisture seal, and as a pressure containment vessel since the dielectric fluid in the cable is pressurized at 25 to 50 psig. In the case of lead, bronze tapes are frequently required to strengthen the lead sheath and to keep it from deforming due to the cable pressure. The thickness of the oil impregnated paper insulation is approximately the same as used for HPFF cables. The dielectric fluid utilized in SCFF cables systems are low viscosity synthetic cable dielectric fluids, typically alkylbenzene.

The cable may be directly buried in the earth or it may be installed in concrete encased duct banks to avoid long lengths of open trench. Since elevation changes along the cable route can significantly affect the fluid pressure, fluid reservoirs and stop joints are required along the length of the cable circuit (typically at each splice location) to segregate the cable into several hydraulic zones. If the cable route is relatively level, then the distance between fluid reservoirs is dictated by the pressure drop along the fluid duct during expansion and contraction of the fluid during temperature excursions. In no case, should the pressure be allowed to drop below a minimum level (10 or 15 psig) nor should it be allowed to increase above the maximum allowable pressure determined by the hoop strength of the sheath.

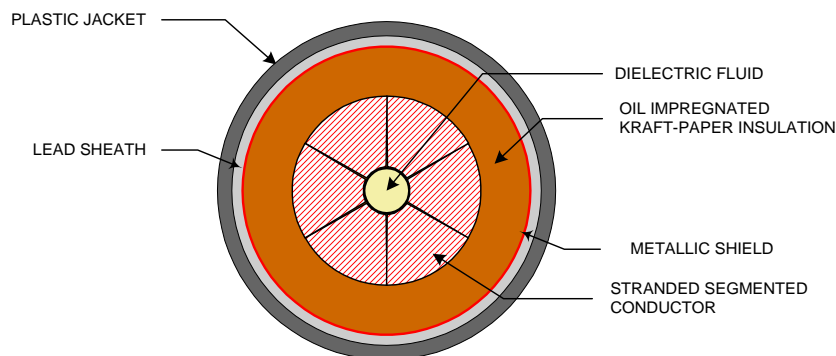


Figure 4. Cross section of typical SCFF transmission cable

While this type of cable has been used extensively, outside of the US, it currently makes up less than 5 percent of the transmission cable in this country. This cable has been manufactured for system voltages from 69 kV up to 500 kV. There is one relatively short 500 kV SCFF cable installation in the US. Long submarine cable circuits are one application where this type of cable has definite advantages over the

other types of cables. This is due to the fact that there are overseas submarine cable factories that have the capability of manufacturing this type of cable in lengths exceeding five miles in length – thus avoiding the necessity of having field or factory installed joints.

As in the case of HPFF cables, SCFF cables are designed with quite high electrical stresses and the cable dielectric fluid must be pressurized to suppress ionization – otherwise an electrical breakdown would occur.

The primary advantages of this type of cable system are:

- Good long term reliability
- Higher rating than self-cooled (i.e. no pipe fluid circulation) pipe-type cables, if directly buried.
- Domestic supply available
- Dielectric fluid is present, but in much smaller quantities than HPFF cables
- Can be manufactured in very long lengths without splices for submarine cable applications

The primary disadvantages for this type of cable are:

- Historically, higher maintenance than HPFF or extruded dielectric cable systems
- More complex to design and operate compared to extruded dielectric cable systems. This is particularly true for applications with “hilly” terrain.
- Concerns about dielectric fluid leaks
- Relatively high charging current and dielectric losses
- Higher magnetic fields than HPFF cable systems
- The availability of skilled cable splicers for this technology is becoming a problem

In summary, the SCFF transmission cable technology is a possible candidate with a proven performance record for constructing underground transmission lines with system voltages of 230 kV, 345 kV, and 500 kV. However, the current trend around the world is to use cable system types other than SCFF for 230 kV and 345 kV cable systems for applications other than submarine cables. This is primarily due to the complexity and higher maintenance of this cable system type.

3.3 Extruded dielectric (XLPE) Cable Systems

This type of cable, which is also called solid dielectric cable, consists of three independent cables as shown in the Figure 5. The cable for each of the three phases consists of a stranded copper or aluminum conductor, and extruded semi-conducting conductor shield, the electrical cable insulation (usually cross-linked polyethylene, XLPE), and extruded semi-conducting insulation shield, a metallic shield or sheath, and a plastic jacket. Extruded dielectric transmission cables are frequently manufactured with a lead sheath or some other form of radial moisture seal to prevent the exposure of the cable insulation to water. While some extruded dielectric transmission cables have operated successfully for long periods of time without such a moisture seal, it is generally accepted that the long-term reliability of extruded dielectric cables will be enhanced by the use of a moisture barrier. This is particularly true for extruded dielectric cables for the higher transmission voltages. Other optional features of this type of cable are longitudinal water blocking of the conductor and between the cable core and the metallic sheath. This longitudinal water proofing limits the amount of cable that would be contaminated with water in the case of a dig in or in the case of a cable fault.

Although ethylene propylene rubber (EPR) insulation has been used for some transmission class extruded dielectric cables, XLPE insulation has been used exclusively for extruded dielectric cables with system voltages above 138 kV. Consequently, all future references to extruded dielectric cable in this document will be synonymous with XLPE insulated EHV transmission cables.

Extruded dielectric transmission cables are manufactured with insulation thicknesses that are from 1.25 to 2 times those of oil-impregnated paper insulation. However, the thickness of XLPE insulation used for a given system voltage has decreased over time with improvements in the cable materials and manufacturing technology. It is common to encounter recently manufactured 230 kV XLPE transmission cables have insulation thicknesses that are approximately the same as typical insulation thicknesses of 138 kV cables that were installed less than five years ago. For example, 230 kV XLPE cables installed by Entergy³ beneath the Mississippi River in 2004 have an insulation thickness of 860 mils and the “full wall” insulation thickness in industry specifications for 138 kV XLPE cable is 850 mils. Typical insulation thicknesses for 230 kV and 500 kV XLPE cables are 900 mils and 1100 mils respectively.

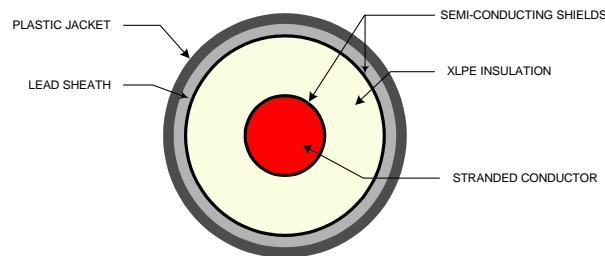


Figure 5. Cross section of typical extruded dielectric cable system

Three different types of splices have been used for 230 kV XLPE transmission cables. The different types of joints that have been used are:

- Field Injection Molded Joints
- Premolded joints
- Prefabricated Joints

Field injection molded splices inject semi-liquid polyethylene into a mold around the exposed ends of the high-voltage conductor and then vulcanize (cross link) the insulation using heating and high pressure. This process requires approximately three weeks to a month for one set of three splices and requires very clean conditions for the splicing.

The last two joint types, premolded (Figure 6) and prefabricated (Figure 7) have primarily been used for recent installations around the world. This is because of last two joint types are more tolerant of field installation conditions, require less time to install, and generally have the lowest cost.

³ P. M. Zimmerman, “Design of the 230kV XLPE Cable System for Mississippi River Crossing Project in New Orleans”, IEEE Insulated Conductors Committee Meeting, Spring 2004.

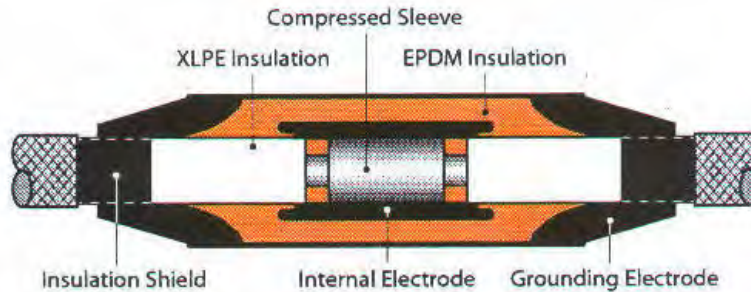


Figure 6. Premolded XLPE cable joint

Prefabricated joints (Figure 7) were initially developed and are primarily used in Japan and several other Asian countries. This type of 230 kV XLPE joint (supplied by J-Power Systems and Viscas) was also used to construct two, 230 kV underground transmission lines in Los Angeles.

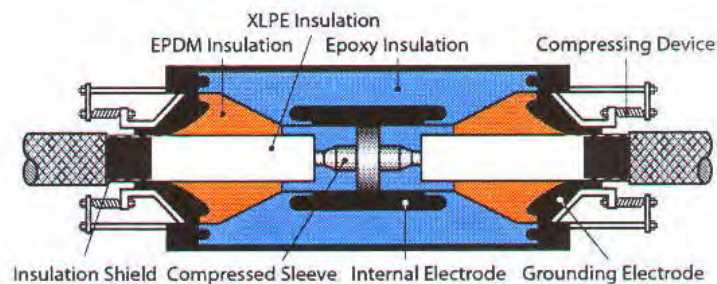


Figure 7. Prefabricated XLPE cable joint

XLPE transmission cables have been available for system voltages up to 138 kV since the early 1970's; however, there was a lack of widespread acceptance in this country because of poor reliability problems with the cable and accessories for some of the initial installations. However, this trend has changed in the last 10 to 15 years because of better cable design, improved dry cure manufacturing extrusion processes, enhancements in XLPE insulation and semi-conductive materials, metallic moisture barriers and improved accessories. These factors have contributed to good service reliability which has been observed for most installations outside of the U.S. and for an increasing number of U.S. installations. Currently, the number of 230 kV extruded dielectric cable installations in the US is also increasing with approximately 150 circuit-miles of underground lines in service. The in-service, domestic 345 kV extruded dielectric transmission cable systems are all less than 1500 feet in length and contain no splices. There is one 3.5-mile-long 345 kV XLPE cable circuit being constructed in Connecticut and a second 345 kV XLPE underground transmission line approximately 22 miles long that is in the procurement stage.

Elsewhere, hundreds miles of 220 – 275 kV extruded dielectric cable systems have been installed in numerous countries around the world and tens of miles of 400 kV extruded dielectric cables have been installed in Europe. Japan completed installation of the first sizeable (two circuits, 25 miles long) 500 kV XLPE transmission cable system in 2001⁴.

⁴ H. Ohno, et.al., "Construction of the world's first long-distance 500 kV XLPE cable Line", CIGRE Session 2000, August 2000, Paris France, Paper No. 21-106.

As with other types of transmission cables, one of the fundamental requirements for reliable operation of this type of cable system is the elimination of partial discharges in the cable insulation. This is accomplished by very close manufacturing control to eliminate any contaminants or voids in the cable insulation. Also, the semi-conducting layers must be manufactured with very smooth surfaces or discharges may occur at these locations.

The primary advantages of extruded dielectric cables are:

- No dielectric fluid or pressurizing equipment is required
- The insulation dielectric losses are significantly lower than for oil/paper insulation
- The charging current or reactive VARS generated by the cable are significantly less than oil/paper insulation.
- Circuit restoration is quicker and often simpler than for HPFF systems
- The current ratings are generally higher for than oil-impregnated transmission cables at system voltages at 230 kV and above.
- The cable system design, operation, and maintenance is less complex than systems with pressurized dielectric fluid.

The primary disadvantages of extruded dielectric cables are:

- It does not have the proven long-term reliability record similar to HPFF or SCFF cable systems for system voltages of 345 kV and above.
- It requires extremely good manufacturing process quality control
- There is only one US manufacturer of extruded dielectric transmission cables and this manufacturer is limited to cables with rated system voltages of 230 kV and less.
- The high thermal expansion coefficient of the insulation presents special design problems for the metallic sheath and accessories.
- Special skills and equipment associated with the cable supplier may be required for cable splicing.

In summary, extruded dielectric transmission cable technology is a proven, viable technology for constructing 230 kV underground transmission lines. Extruded dielectric cables are commercially available at 400 kV and have performed well in recent European and Asian installations. 500 kV extruded dielectric cables and accessories are also commercially available; however, their long-term reliability is somewhat of an unknown at the present time.

3.4 Gas-Insulated Line

The gas-insulated line (also called compressed-gas insulated transmission line, CGITL) has primarily been used in applications where high power transfer capabilities are required, such as short dips in overhead lines or relatively short substation connections (get-aways) to overhead lines.

This type of underground transmission system has been developed with two different configurations. In the three-conductor configuration the three high voltage conductors are contained in a single cylindrical aluminum enclosure. In isolated phase systems the high voltage conductors for each of the three phases are contained in separate cylindrical aluminum enclosures. In both cases epoxy spacer insulators support the high voltage conductor(s) inside of the enclosures that are filled with sulfur hexafluoride (SF_6) or a mixture of SF_6 and nitrogen (N_2) gases. The first generation of this type of underground transmission system⁵ was designed with 100 percent SF_6 gas at pressures from 40 to 60 psig. More recent systems of this type have reduced the SF_6 content to 20% with the remainder being nitrogen. This change in the insulating gas was due to a combination of increasing cost for the SF_6 gas and environmental concerns (depletion of the earth's ozone layer).

Cross sections of the isolated phase construction used for system voltages of 345 kV and higher are shown Figure 8. The three-in-one construction is more economical for system voltages in the range of 220 to 230 kV. The compressed-gas-insulated cables are typically manufactured in straight rigid sections ranging in length from 40 to 60 feet with field welds to connect the enclosures for adjacent sections. The aluminum enclosure (typically about 20 inches in diameter for a system voltage of 345 kV) is coated with corrosion protection for applications where the three enclosures are directly buried.

GIL can be installed in concrete-covered trenches, directly buried, or installed in tunnels. The primary application for this type of underground transmission is the transfer of large amounts of power at system voltages up to 500 kV. The ampacity rating of GIL transmission systems is in the order of 3000 to 5000 amperes or 2,600 to 4,300 MVA at a system voltage of 500 kV.

Relatively short lengths (< 1000 feet) of the first generation (100% SF_6) compressed-gas underground transmission lines have been installed in the US, Japan, and European countries for several decades. The system voltage for these installations have been from 138 kV up to 765 kV. France, Germany and several other European countries have funded the development of second generation (SF_6/N_2 mixtures) compressed-gas underground transmission lines because of increasing difficulties to obtain permits for new 400 kV overhead transmission lines. The first commercial application of the second generation GIL technology⁶ was the construction of a "dip" in an existing 400 kV overhead transmission line in Geneva, Switzerland in 2000.

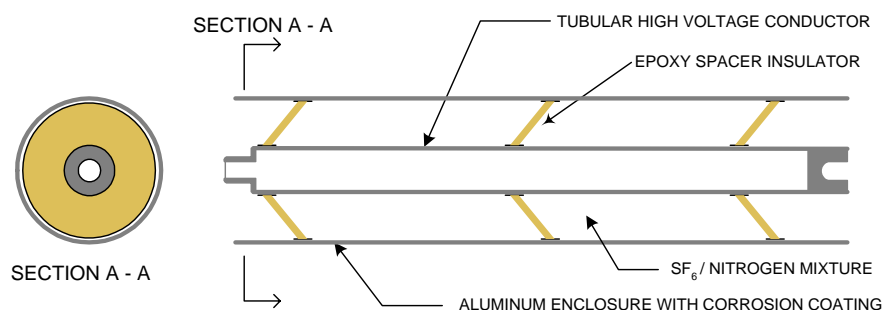


Figure 8. Typical cross section of GIL

⁵ T. Kobayashi, et. al. "Development of Compact 500 kV 8000 A Gas-Insulated Transmission Line – Study on Insulation Design", IEEE Transactions 84 WM 192.

⁶ H. Koch, "Gas Insulated Transmission Line (GIL) – Proven Technology with New Performance", IEEE Insulated Conductors Committee Minutes, Fall 2000.

The primary advantages of this type of cable system are:

- Power transfer capabilities that are significantly higher than those for other types of underground transmission
- Relatively simple system design
- Relatively low electromagnetic fields levels
- The charging current or reactive VARS generated by the cable are significantly less than all other types of underground transmission systems.
- Dielectric losses (no-load losses) are very low compared to oil/paper cable systems

The primary disadvantages of compressed-gas insulated transmission systems are:

- Relatively high costs compared to the other underground types of underground transmission cables. A Spanish utility recently reported⁷ that the cost of GIL would have been approximately 40% to 50% higher for a 400 kV underground transmission line at the Madrid Airport.
- Environmental concerns about releases of SF₆ gas to the environment
- A relatively high amount of field assembly work is required
- Less flexibility in avoiding other underground obstacles
- Larger right-of-way required compared to other underground cable systems
- System reliability is sensitive to contaminants introduced during field assembly

In summary, GIL is a viable technology for constructing 230 kV. This type of underground transmission system can easily match the power transfer capabilities of overhead lines; however, its use has been limited to relatively short installations (< 1000 feet) due to its relatively high cost.

3.5 Number of Circuits to Match Overhead Line Ratings

Bare overhead conductors generally have significantly higher current ratings compared to the same conductor that is covered with electrical insulation and buried in the ground. Since transmission cable manufacturing constraints limit the maximum conductor size (approximately 3500 kcmil for HPFF and 5000 kcmil for XLPE, and SCFF transmission cables), there are many cases where it is not possible for underground transmission lines to match the thermal ratings of overhead transmission lines with one cable per phase (i.e. a single circuit). In these cases it is necessary to use two or more cables per phase (i.e. circuits) to match the power transfer capability of overhead lines.

The situation is completely different for compressed-gas insulated underground transmission lines due different electrical and mechanical design requirements compared to HPFF, SCFF, and XLPE cable systems. Since the dielectric breakdown strength of SF₆/Nitrogen is significantly less than that of oil/paper and XLPE insulations, the diameter of the enclosure and high voltage conductors must be much larger than the diameter of the other transmission cable types. The high voltage conductor is typically an aluminum tube and the minimum thickness of the tube (in the order of 0.5 inches) is determined by mechanical requirements. Consequently, the minimum current rating that is practical for GIL is approximately 2,500 amperes.

⁷ R. Granadino, "Red Electrica Installs Spain's First 400-kV Cable System", Transmission & Distribution World, August 2005.

3.6 Right-of-Way Requirements

Generally, there are two different right-of-way situations for constructing underground transmission lines. In urban areas it is common practice to construct underground transmission lines in public owned right-of-ways such as public streets. In rural and some suburban areas the most common practice is for the utility to negotiate dedicated right-of-way, or easement agreements with the owners of the properties that are crossed by the underground line.

Public Right-Of-Way

In the case of public right-of-way installations, the utility must apply to the appropriate government agency for a construction permit. The construction permits in this scenario usually contain a number of conditions (i.e. traffic control requirements, limitations on the maximum length of open trench, construction time restrictions, environmental impact requirements, etc.) that must be met during construction of the underground line. In this case, the primary issue is the maximum allowable width that may be used by the installation contractor during installation of the cables. When underground installations are located under streets or roads, the amount of permanent right-of-way required for the cables is generally limited to the trench widths summarized in the following sections. As shown in Figure 9, a typical construction width in city streets is 20 feet. In most installations, the right-of-way is shared with other underground utilities (i.e. water, gas, sewers, and telephone). During construction, additional space is needed for equipment and supplies. Adjacent portions of the street or road are used for this purpose. The street or road also provides long-term access for maintenance and repairs.

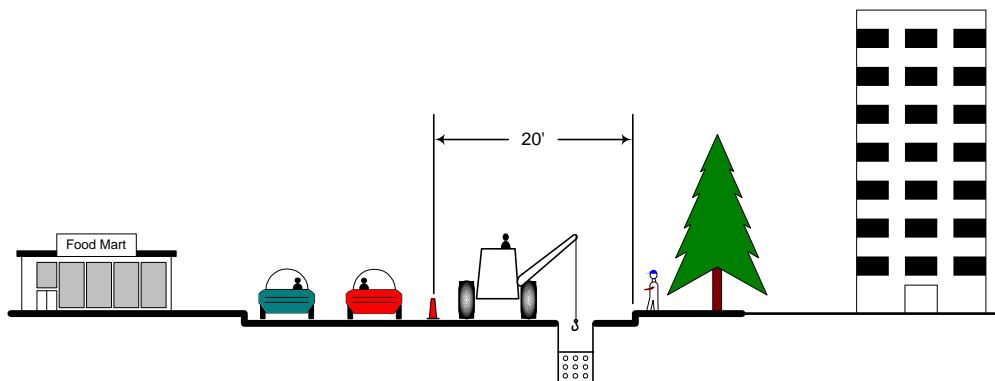


Figure 9. Construction right-of-way requirement for urban environment

Right-Of-Way on Privately Owned Lands

In the case of easements for construction of underground lines on privately owned lands, the utility usually negotiates for use of a certain maximum width during construction activities and a separate width for a operation and maintenance of the underground transmission line.

When underground installations are located in off-road areas, additional right-of-way is required for the construction and for long-term access for maintenance and repair. The amount of land required varies depending on the type of system, number of circuits, and on the character of the surrounding land. As shown in Figure 10, a right-of-way 30 to 50 feet wide is typically required for one or two circuits of cable types other than gas-insulated lines. When special construction measures such as one-way vehicle movements along the cable route are used, circuits can be installed in right-of-ways as narrow as 20 feet for relatively short distances. When steep terrain or other difficult construction conditions are

encountered, wider right-of-way widths are required. Hillside installations, for example, may require a width of 80 feet or more. Typical permanent right-of-way widths vary from 25 to 50 feet for most rural underground lines.

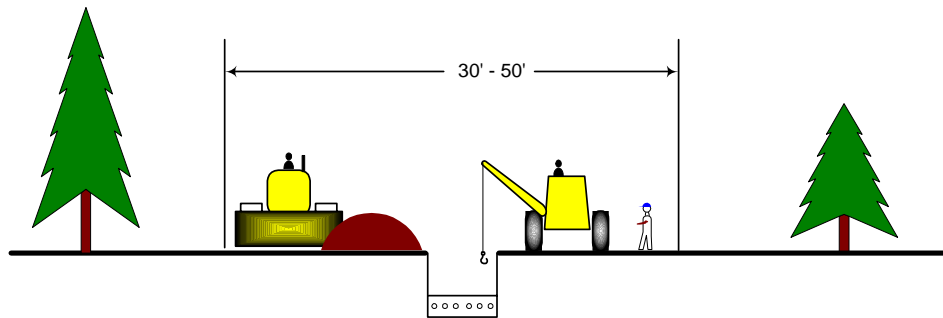


Figure 10. Construction right-of-way requirement for rural environment

The following sections summarize typical right-of-way requirements for the different types of underground transmission lines for dedicated and public owned right-of-way conditions.

3.6.1 HPFF Cable Systems

The trench widths for HPFF cable systems may be estimated from the cable pipe diameter (see Table 1) and the following guidelines for installing HPFF cable systems. A minimum thickness of 6 to 8 inches of backfill material is typically maintained between the pipe and the closest trench wall. Typically, a minimum spacing of 15 to 20 inches is maintained between adjacent pipes.

Table 1 – Typical Pipe Sizes For HPFF Transmission Cable Systems

System Voltage	Cable Insulation	
	Paper	PPP
230 kV	8"	6" to 8"
345 kV	8" to 10"	8"

Typical HPFF cable trench widths for one, two, and three cable pipes installed in a common trench are shown in Figure 11. If the native soil has poor thermal properties (i.e. it has a high thermal resistivity) then it may be necessary to dig wider trenches to replace the native soil with special backfill materials. The trench widths may be significantly wider than those shown in Figure 11 if this condition is encountered.

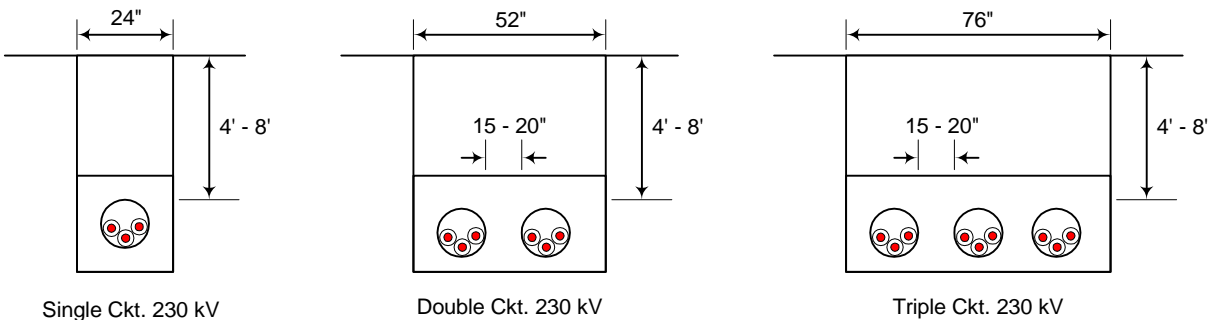


Figure 11. Typical trench cross sections for 230 kV HPFF cable systems

It should also be noted that placing multiple HPFF cable circuits in a common trench significantly reduces the power transfer capacity of each of the cables in the trench due to mutual heating between the cable circuits. Consequently, it is uncommon to install more than three HPFF transmission cables in the same trench.

3.6.2 Extruded dielectric and SCFF Cable Systems

The trench widths required to install extruded dielectric and SCFF transmission cables are approximately the same for most applications.

Extruded dielectric and SCFF Ductbank Installations

Figure 12 shows commonly used ductbank geometries and approximate trench widths for SCFF and extruded dielectric cables that are installed in concrete encased duct banks. The width of the cable trench can be estimated from the ductbank geometry, the size of PVC conduit, and the following typical construction practices.

Commonly accepted industry practice for installing transmission cables in concrete encased duct banks requires a minimum clearance of ½" between the outside of the transmission cable and the inside diameter of the cable duct. Using this as a guideline, conduit sizes for 230 – 345 kV duct bank installations are shown in Table 2.

Table 2 – PVC conduit sizes for 230 – 345 kV XLPE transmission cables.

System Voltage	Trade Size	Outside Diameter Schedule 40 (in.)
230 kV	6"	6.625
345 kV	6" to 8"	6.625 - 8.625*

* 7-inch PVC conduit is not a standard Schedule 40 trade size

Typically, a minimum separation of three inches between adjacent conduits and a minimum encasement thickness of three inches are maintained for transmission cable ductbank. These requirements plus the conduit sizes in Table 2 result in the trench widths shown in Figure 12.

As is the case for HPFF cables, it is relatively uncommon to install more than three cable circuits in a common trench because of decreased per circuit power transfer capability.

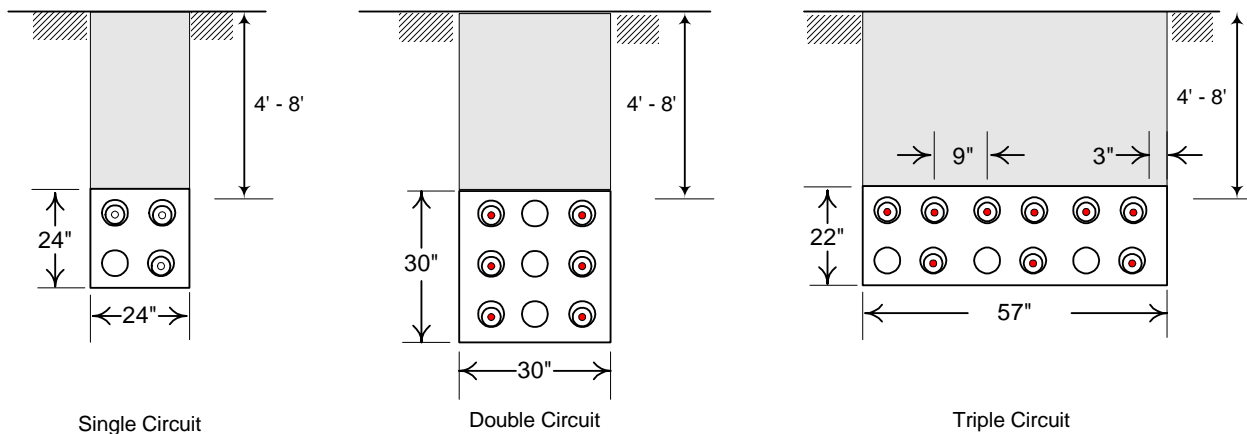


Figure 12. Typical trench cross sections for 230 kV extruded dielectric cables, duct bank installation

Direct Buried XLPE and SCFF Cable Systems

Figure 13 shows commonly used direct buried geometries and approximate trench widths for SCFF and extruded dielectric cables for a direct buried installation. The width of the cable trench can be estimated from the ductbank geometry and the following typical construction practices.

The cables are commonly separated by 8" to 10" and the minimum thickness of special backfill material to the native soil is typically six inches. Using this as a guideline, trench widths for 230 kV duct bank installations are shown in Figure 13.

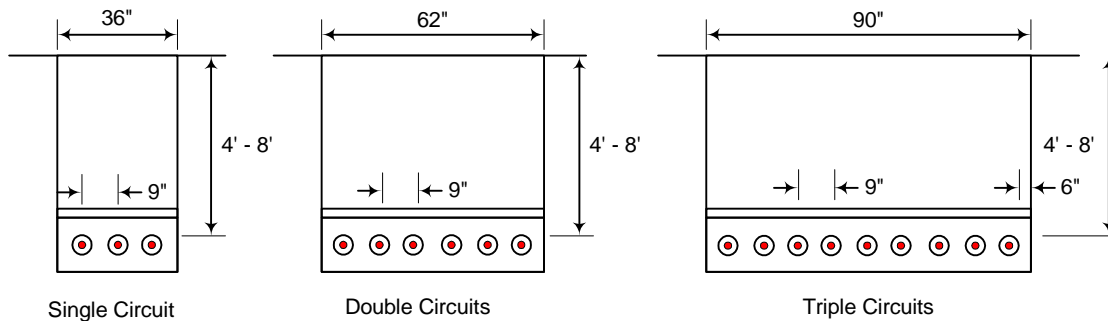


Figure 13. Typical trench cross sections for 230 kV extruded dielectric cables, direct buried installation

3.6.3 Gas-Insulated Lines

The outside diameters of gas-insulated lines result in trench widths that are significantly larger than those for the other types of transmission cables covered in this report. Figure 14 shows the approximate trench width for a 345 kV GIL cable system that uses a mixture of SF₆ and nitrogen for the high voltage insulation. A 345 kV GIL cable system that uses 100% SF₆ for the compressed gas would have a slightly narrower trench due to the somewhat smaller diameter of the enclosure for each of the three phases.

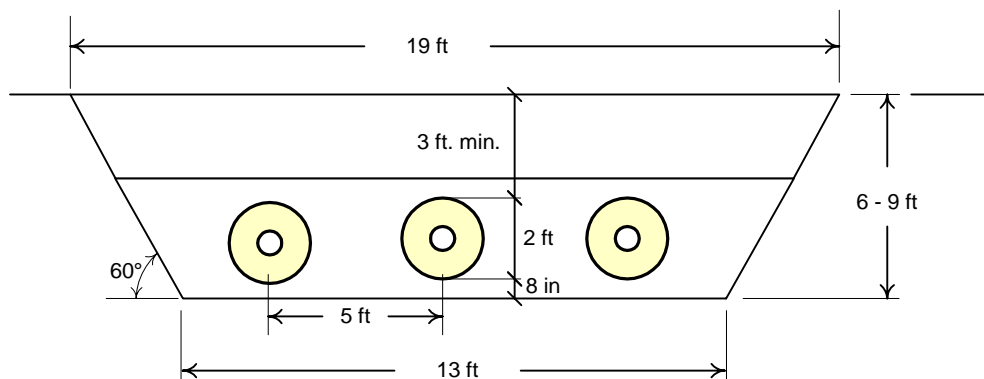


Figure 14. Typical trench cross section for 345 kV SF₆/N₂ compressed-gas cable

3.7 Land Requirements for Transition Stations

In many cases, such as substation getaways and cable dips in overhead lines, transitions must be made from overhead to underground lines. This type of transition is typically handled in somewhat different ways for the different types of underground cables.

HPFF Cable Systems

The most common way of handling overhead to underground transitions for HPFF cable systems is to construct a “transition station” that is similar to a small substation. Low elevation steel support structures for the cable terminations and surge arresters are constructed in a small fenced in area (see Figure 15). For cable dips that are in the middle of an overhead line, one of the relatively small transition stations must be large enough to handle a dielectric fluid pressurization unit (pumping plant) shown on the right side of Figure 15.

Typical land requirements for HPFF transition stations without pumping plants and without trifurcating manholes are shown in Table 3. Approximately 500 sq. ft. of additional area would be required for transition stations with HPFF pumping plants. Additional lengths (first numbers in size dimensions) of approximately 20 to 25 feet would be required for installations with trifurcating manholes. Additional area would also be required for the transition stations if shunt compensation reactors, disconnect switches, and circuit switchers are required.

Table 3 – Typical Land Requirements for HPFF Transition Stations

System Voltage	Size (ft.)
230	100 X 120
345	120 x 160



Figure 15. Typical 230 HPFF cable system transition station

Riser poles, for supporting the cable terminations, have been used for a small number of HPFF transitions; however, this approach is usually limited to cables with system voltages of 115 kV and less.

Extruded dielectric And SCFF Cable Systems

Two different approaches have been used for overhead to underground transitions for extruded dielectric and SCFF cable systems for system voltages up to 230 kV. These are riser pole transitions and ground level transition stations as shown in Figures 16 and 17.



Figure 16. 230 kV SCFF overhead to underground transition with SCFF cables



Figure 17. 230 kV extruded dielectric cable riser poles used by Arizona Public Service

Compressed-Gas Insulated Cable Systems

Ground level transition stations similar to those described for HPFF cable systems are required for GIL cable systems. The minimum land requirements for the GIL transition stations are also similar to those listed in 3.

3.8 Frequency of Splicing Manholes or Pits

A fundamental objective of transmission cable system design is to minimize the number of splicing manholes for underground transmission systems to reduce the installed cost, improve system reliability, and to reduce maintenance costs. Minimizing the number of manholes obviously increases the distance between splicing manholes, and the maximum distance between manholes is determined by the following factors.

1. Maximum lengths of cables that can be shipped to the construction site - In many cases, particularly open-trench direct buried cable installations, the maximum distance between manholes is determined by the maximum reel size that can be shipped across highways and temporary construction roads in order to get the cables to the transmission line ROW.
2. Maximum allowable pulling tensions – HPFF, SCFF, and extruded dielectric cables have limitations for the maximum pulling tensions and maximum sidewall bearing pressure that the cable can survive without damaging the cable.
3. Cable Design – The design of the cable affects the maximum distance between manholes in two different ways. First, the heavier the cable the shorter the maximum distance that it can be pulled. The cable designer can alter the construction of the conductor metal, and the sheath to minimize the weight of a cable. The outside diameter of the cable is affected by its design and the maximum length of cable that can be put on a reel is determined by the cable's diameter.
4. Physical constraints of the cable route - The number of bends, ground slopes, dips, and elevation changes affect the pulling tension required to install the cables and, therefore, the maximum distance between splicing manholes. Space availability for manholes limits the maximum distance between manholes in some cases.
5. System grounding method (extruded dielectric and SCFF cable systems) – A special type of cable system grounding, called cross-bonding, is frequently used to minimize the induced currents in the cable sheaths and cross-bonded cable systems require that the distance between manholes be approximately equal. This can affect maximum distances between manholes in some cases.

The maximum distances between splicing manholes, considering the above factors, for the different cable types are summarized in the following sections.

3.8.1 HPFF Cables

The maximum distances between splicing manholes are primarily determined by the first four of the factors listed in the preceding sections. Typical maximum distances between splicing manholes for HPFF cable systems range from 2,000 to 3,500 feet for relatively straight cable alignments. The maximum allowable pulling section length decreases significantly if there are numerous bends or dips in the cable alignment.

3.8.2 XLPE and SCFF Cables

For concrete encased ductbank installations the maximum distances between splicing manholes may be limited either by the cable reel shipping limitations or maximum allowable pulling tensions.

The maximum amount of cable that can be shipped on highways and streets depends on bridge clearances, line clearances, and other vertical height restrictions along the specific route that the cable must be shipped. The reel dimensions and, therefore, the maximum amount of cable on a reel is also a function of the cable's rated voltage. Consequently, the maximum lengths of cables that can be shipped decreases with increasing system voltage. It was necessary to develop special reels and transportation equipment for several of the first 400 kV cable installations^{8,9} (see Figure 18). Corrugated sheath cables also result in shorter cable lengths that can be shipped.



Figure 18. Special cable transport equipment

Table 4 shows typical maximum distances between manholes for XLPE dielectric cables based on the above restrictions.

Table 4 – Typical maximum distances between manholes for extruded dielectric and SCFF cables

System Voltage	Distance Between Manholes (ft)
230	2500 - 3500*
345	2000 - 3000*

* Special transport equipment required

3.8.3 Compressed-Gas Cables

The longest lengths of rigid GIL cable that can be shipped across highways are typically 50 to 60 feet, and these sections are welded in the field. However manholes are placed at distances of approximately 3,000 feet as shown in Figure 19. The manholes for GIL systems accommodate compartmentalization for vacuum treating, as well as gas filling and removal, if necessary.

⁸ P. Christensen and T. Roes, “Underground EHV System In Copenhagen”, Transmission & Distribution World, June 2000.

⁹ D. Paulin, “400 kV Link Between Friedrichshain and Marzahn in a Tunnel”, Minutes of the IEEE Insulated Conductors Committee Meeting, Fall 2000.

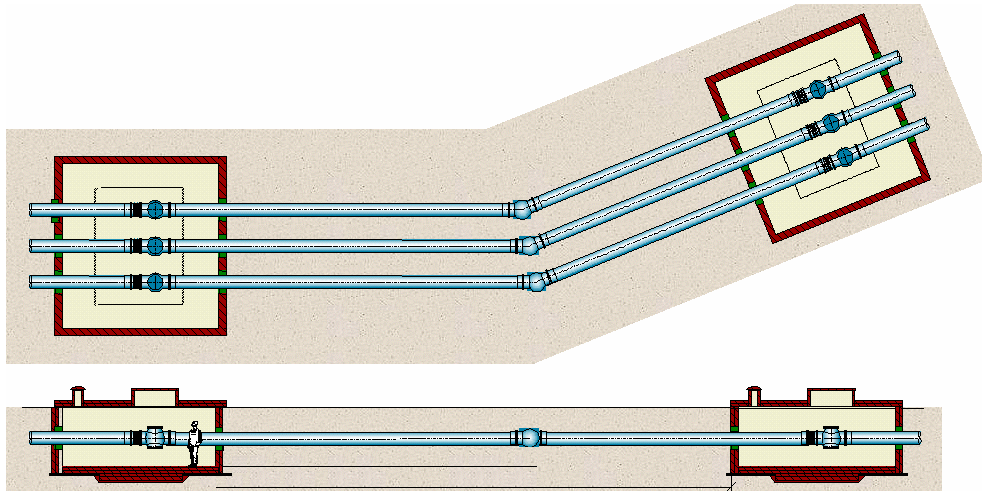


Figure 19. Manholes for GIL cable system

3.9 Reactive Compensation Requirements

The high capacitance of underground cable systems results in the relatively high charging current requirements. The reactive MVAR associated with the cable charging current must either be absorbed by the power system or shunt reactors may be required at one or more locations along the cable circuits. For many relatively short cable systems, no reactive compensation may be required. However, for longer cable circuits most utilities compensate from 60 to 100 percent of the cable's reactive charging by means of shunt reactors. The shunt reactors add significantly to the initial cost of the cable system and the losses associated with the reactors increase the system operating costs.

3.10 Relative Operation and Maintenance Issues

There are significant differences in the operation and maintenance requirements for the four different kinds of underground transmission. The relatively high operation and maintenance costs associated with SCFF cable systems was one of the main reasons that European countries changed to extruded dielectric cables. HPFF cable systems are also considered to require relatively high maintenance compared to extruded dielectric cables. The first generation of gas-insulated lines in North America had high operation and maintenance costs associated with gas leak location and repair; however, operating experience in Europe and Japan indicate that operation and maintenance requirements for this type of cable system are quite good if appropriate installation practices are observed.

There may be some disagreement concerning the relative maintenance requirements of the different types of cable systems depending on who is doing the ranging. However, the following list shows PDC's ranking of the various cable system types (from lowest to highest operation and maintenance requirements) from O&M considerations.

- XLPE Cables
- GIL Cables
- HPFF Cables
- SCFF Cables

The most significant operation and maintenance requirements for the different types of cable systems are:

HPFF Cable Maintenance Requirements

HPFF cable systems have relatively high O&M costs because of:

- Quarterly cathodic protections surveys
- Routine pumping plant checks and maintenance
- Periodic dissolved gas in oil sampling and analysis
- Leak detection, location, and repair

Most utilities have experienced few dielectric fluid leaks for properly maintained HPFF cable systems. However, some utilities with extensive HPFF cable systems in metropolitan areas have had numerous costly dielectric fluid leaks.

SCFF Cable Maintenance Requirements

SCFF cables systems generally have the highest O&M costs because of:

- Leak location and repair
- Routine checks and maintenance of the fluid pressurization alarms
- Periodic dissolved gas sampling and analysis

Extruded dielectric Cable Maintenance Requirements

Extruded dielectric cables are generally considered to have the lowest O&M costs because the only dielectric fluid in the system is a small amount in the terminations. This lack of dielectric fluid means that there is no pressurization equipment that requires routine maintenance, no fluid testing is necessary, and fluid leaks are eliminated.

In most cases the only routine maintenance requirements for extruded dielectric cable systems are:

- Occasional checking of the sheath voltage limiters and bonding leads
- Occasional checking of the splice vaults
- Occasional checking of the terminations for fluid or gas leaks

GIL Maintenance Requirements

O&M requirements of GIL systems are relatively low provided that there are no gas leaks and the corrosion protection is in good condition. The primary O&M requirements for this type of cable system are:

- Monitoring of the insulating gas pressure and moisture content
- Routine corrosion protection surveys

3.11 Complexity of Installation

There are significant differences in the skills and equipment required for the installation of the different types of underground cable systems. The following sections summarize some of the special requirements and complexity of installation for the different types of underground cable systems.

3.11.1 HPFF Cable System Installation

The installation complexity of HPFF cable systems is similar to SCFF, and GIL cable systems; however, they are significantly more complex than XLPE transmission cables. This is primarily due to the following reasons.

1. Oil-impregnated cable insulation is hygroscopic (i.e. has an affinity to absorb moisture) and absorption of atmospheric moisture increases the insulation dielectric losses. Unless appropriate care is taken, absorption of moisture by the insulating tapes during splicing, termination, and cable pulling can lead to premature failures. The moisture absorption problem isn't as critical at system voltage of 160 kV and below; however, it becomes an increasingly important issue at system voltages of 345 kV and above. For the higher system voltages humidity control equipment must be used to keep the relative humidity below 15%.

Splicers must wear cotton gloves during handling of the splicing tapes to minimize absorption of moisture and oils from the splicers hands. Also, the temperature of the oil-packed splice tapes must be controlled to eliminate atmospheric condensation.

Care must be taken to keep the cables dry during cable pulling operations. HPFF cables are manufactured with moisture barrier tapes to minimize water absorption by the insulating tapes; however, they do not make the cables water proof.

2. Special skills are required for termination and splicing of the HPFF cables. Lower voltage HPFF cable splices are typically made with crepe paper tapes which are somewhat elastic and conform to minor irregularities. In contrast, HPFF cable systems with system voltages of 345 kV and above must be spliced with the same non-elastic paper tapes that are used to manufacture the cables. Consequently, a higher level of skills (and complexity) are required to splice EHV HPFF cable systems. It should also be noted that the number of skilled "hard paper" splicers has decreased significantly over the past decade. It is difficult to locate qualified HPFF cable splicers that are not employees of the larger metropolitan utility companies.
3. The presence and handling of the pipe filling (dielectric) fluid increase the complexity of HPFF cable system installation. The pipe must be welded by specially qualified welders and the welds must be X-ray inspected. The pipe must then be pressure tested and vacuum treated to remove moisture. Care must be exercised in handling the dielectric fluid from the refinery to the last details of pipe filling. Otherwise, contaminants in the pipe-filling fluid can migrate to the high voltage insulation.

3.11.2 SCFF Cable System Installation

The installation of SCFF cable systems is one of the most complex of all of the different types of transmission cables systems. This complexity is a result of the following factors.

1. As in the case of HPFF cable systems, great care must be exercised during splicing and termination work to minimize absorption of moisture by the factory and hand applied insulating tapes. The complexity of splicing and terminating work is increased by the fact that the conductor is filled with dielectric fluid and it is important to keep air from displacing the dielectric fluid. Consequently, a small flow of dielectric fluid must be maintained during splicing.

Exposure to rain and high humidity during cable pulling is not of concern (as is the case with HPFF cable systems) because of the relatively moisture tight plastic cable jacket.

2. Similar to HPFF cable systems, highly skilled “hard paper” cable splicers are required for jointing and termination of the cable. In many cases off shore splicers must be located to perform the splicing and termination work for SCFF cables.
3. Splicers with good lead wiping skills are also critical to successful jointing and termination of the cables. These skills are becoming increasingly difficult to find.
4. The presence and handling of dielectric fluid significantly increases the complexity of SCFF cable system installation. Special filtering and degassing equipment must be used to maintain the low dissipation factor, dielectric breakdown strength, and remove dissolved gasses from the dielectric fluid. Maintaining the quality of the dielectric fluid is even more critical than for HPFF cable systems because the high voltage insulation is directly exposed to the dielectric fluid in the hollow high voltage conductor. Any contaminants in the dielectric fluid will adversely affect the dissipation factor of the high voltage insulation in a short period of time.
5. The installation, adjustment, and testing of hydraulic fluid pressurization reservoirs along the length of the cable circuit (depending on elevation changes) further adds to the complexity of installation.

3.11.3 XLPE Cable System Installation

The installation of XLPE transmission cable systems is the least complex of the four types of underground transmission systems. This is due to the following factors.

With the exception of a small amount of dielectric fluid in the cable terminations, there is no dielectric fluid to complicate the cable system installation.

A high level of skill is required to splice and terminate the cables. However, the development of pre-molded splices and terminations for cable system voltages up to 500 kV has significantly reduced the complexity of installation for this cable system type. The pre-molded joints and termination stress cones require special tools for preparation of the cable ends and for installation, but the process is similar to the procedures for splicing and terminating distribution cables. Cleanliness is important but humidity control is not required in most cases. Jointing of the only long distance 500 kV cables required a more complex field injection molding process.

3.11.4 GIL Cable System Installation

The installation of compressed-gas transmission cables is also relatively complex compared to extruded dielectric cable systems. The installation complexity of GIL systems is a result of the following requirements.

1. GIL cable systems cables must be performed in a clean environment to keep contaminants out of the enclosure. Otherwise, the particles of contaminants can move to high stress regions and eventually cause electrical failure. The complexity of this requirement is increased by the numerous straight sections of GIL cable that must be assembled in the field.
2. It is important to keep the moisture content of the insulating gas low to prevent condensation from forming. The GIL cable must be “compartmentalized” to make vacuum drying of the enclosure prior to filling effective in removing adsorbed moisture on the spacer insulators and the enclosure wall.

3. Specialized gas handling equipment is required for the nitrogen/SF₆ gas mixture. Pure SF₆ can be liquefied during removal for temporary storage. However, this is not feasible for nitrogen/SF₆ mixtures.

3.11.5 Summary of Relative Installation Complexities

The relative installation complexity of the four different types of underground transmission cables is somewhat subjective. It is generally accepted that XLPE transmission cable system installation is the least complex of the four cable types. The relative installation complexity of HPFF, SCFF, and GIL cable systems is debatable. However, it is PDC's opinion that the relative complexity of HPFF and GIL cable systems is similar. The installation of SCFF transmission cables is somewhat more complex than HPFF and GIL cable systems.

4. San Luis Rio Colorado Preliminary Cable System Designs

Preliminary HPFF pipe-type and XLPE transmission cable circuit designs were prepared to determine the cable sizes, number of manholes (splice vaults), and trench requirements for the budgetary cost estimates. The HPFF and XLPE transmission cable types were selected as likely candidates for the proposed San Luis Rio Colorado Project one-mile underground transmission segment because they are the two most common 230 kV cable system types used in North America.

4.1 XLPE Transmission Cable System Design

The preliminary design for extruded dielectric (XLPE) transmission cable system uses concrete encased duct banks separated by 15 feet as shown in Figures 20 and 21. The two cable duct banks (one for each of the two circuits) would be constructed with a separation of 15 feet to minimize mutual heating between the two circuits and to decrease the probability of a dig-in that would jeopardize both circuits. Ampacity calculations indicate two, 2000 kcmil, compact segmental, copper conductor cables per phase would be required to meet the 800 MW (2,008 Amp) power transfer requirement. Hence, there would be six cables in each of the two concrete encased duct banks.

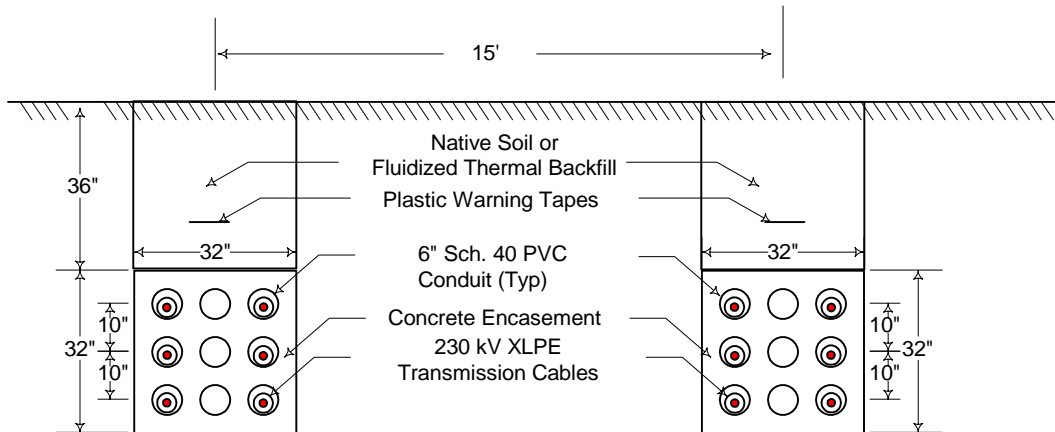


Figure 20. Trench cross section of 230 kV XLPE transmission cable duct bank.



Figure 21. 230 kV XLPE transmission cable duct bank construction

Parameters used for the ampacity calculations for the XLPE transmission cable system are shown in Table 5.

Table 5. Parameters for cable rating (ampacity) calculations

Parameter	Value	Units
Sheath grounding	Cross-Bonding	--
24-hour Load Factor	75	%
Maximum conductor temperature, normal operating conditions	90	°C
Maximum conductor temperature, emergency operating conditions	105	°C
Typical Depth to Top of Duct Bank	36	Inches
Maximum Soil Ambient Temperature	35	°C
Soil Thermal Resistivity	110	°C-cm/W
Thermal Concrete or Thermal Backfill	60	°C-cm/W
Installation	Figure 20	--

Splice vaults would be required at two intermediate locations between the ends of the underground segment of the transmission line and typical industry practice is to install two staggered splice vaults at each of these locations due to worker safety and service reliability issues. Figure 22 is a schematic of the manhole (splice vault) locations for each of the two circuits. The size of each concrete vault would be approximately 24' L x 8' W x 7' H (inside dimensions).

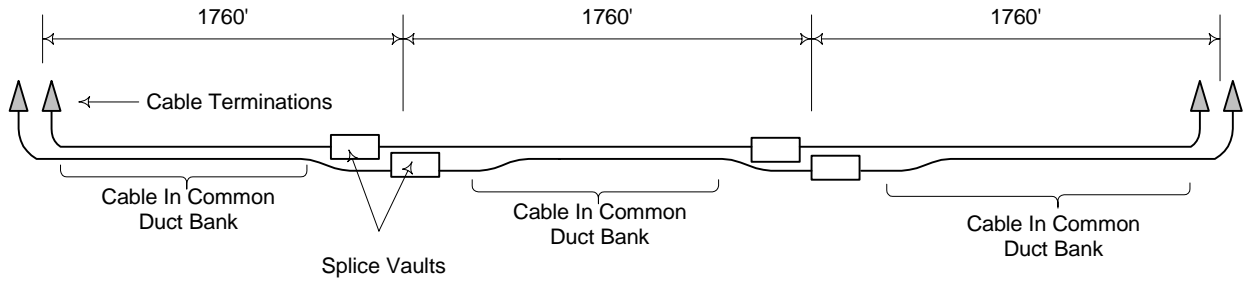


Figure 22. Splice vault locations for each of two 230 kV circuits.

The overhead to underground transmission transitions would be constructed using steel riser poles as shown in Figure 23.



Figure 23. 230 kV overhead to underground transition using one steel riser pole for each of two circuits.

4.2 HPFF Pipe-Type Transmission Cable System Design

The preliminary design for the HPFF pipe-type transmission cable system consists of two cable trenches separated by 15 feet as shown in Figure 24. The trench for each of the two cable circuits would contain two 8" coated steel pipes for the 230 kV HPFF cables and a 5" pipe fluid return pipe for circulating and cooling the dielectric fluid in the pipes. An alternate design would be to circulate the pipe fluid using the two 8" cable pipes (i.e. no dedicated fluid return pipe). However, this design would result in the loss of forced cooling if there is a cable failure in one of the two cable pipes.

Figure 26 shows a hydraulic schematic of for each of the two 230 kV underground transmission circuits. The fluid pressurization equipment and reservoir (commonly called a pumping plant) maintains the pressure of the dielectric fluid between 185 and 225 psig and the reservoir accommodates the expansion and contraction of the dielectric fluid in the pipe as the temperature of the cables changes. The pipe fluid refrigeration unit cools the pipe fluid and circulates the fluid in the two cable pipe at a rate of approximately 50 GPM during high load periods. During medium load periods the pipe fluid is circulated through heat exchangers without refrigeration of the pipe fluid.

Only one splice location would be required because longer lengths of cable can be shipped on HPFF cable reels (compared to XLPE cable). The single splice vault can be used for two cable splices because the splices are contained in welded steel casings.

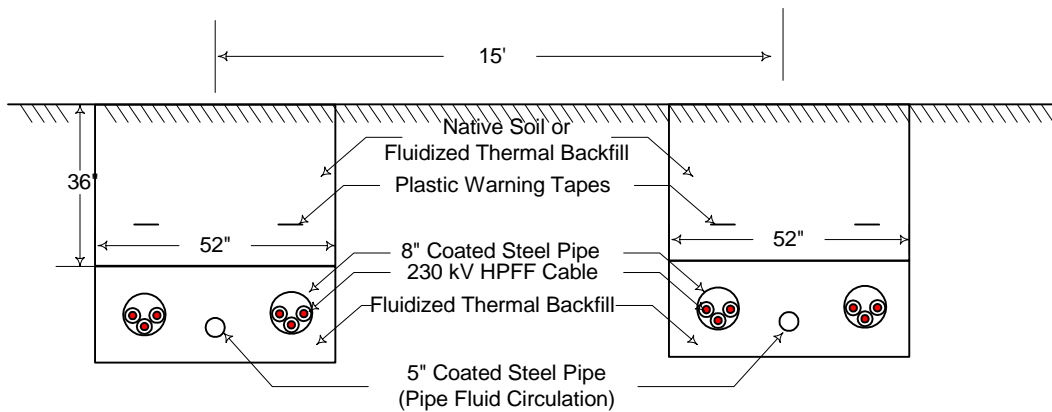


Figure 24. Trench cross section of 230 kV HPFF transmission cable system



Figure 25. 230 kV XLPE transmission cable system construction

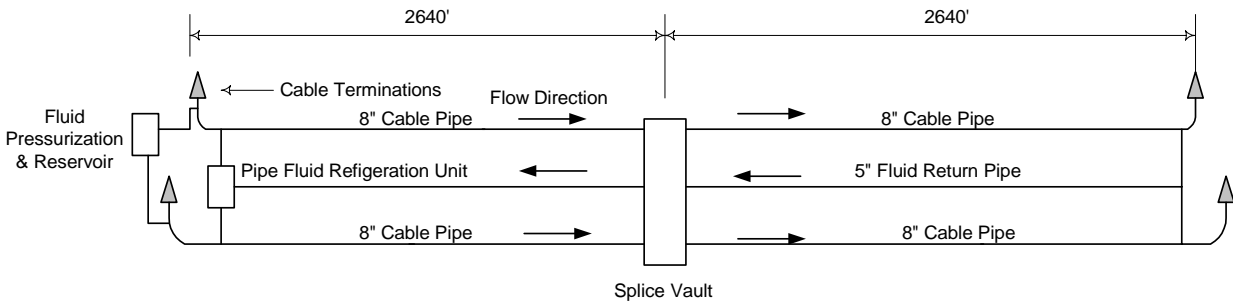


Figure 26. Hydraulic schematic of one 230 kV HPFF pipe-type cable circuit.

Ampacity calculation for the preliminary HPFF cable system design indicates that two 2500 kcmil, compact segmental copper conductor cables would be required to achieve the 800 MW/circuit rating with forced cooling and circulation of the pipe dielectric fluid.

5.0 Cost Estimates

Cost estimates were prepared for the constructing one-mile long 230 kV underground transmission line for the proposed San Luis Rio Colorado Project underground transmission alternatives.

5.1 Assumptions

The following assumptions were made by PDC in preparing cost estimates for constructing a one-mile long 230 kV underground transmission lines using XLPE transmission and HPFF transmission cables.

- A single contract would be issued for the underground transmission line to design, supply the material, and construct the underground transmission lines. The contractor to takes full responsibility for the design, supply of material, and construction of underground transmission lines.
- No right-of-way or easement costs are included in the cost estimates. The cost estimates assume that the underground transmission line will be constructed on a wide right-of-way with a width of approximately 50 feet.
- 230 kV cable and accessory costs are based on costs from other current underground transmission projects in 2006 and 2007. It should be noted that the cost of transmission cable, and to a lesser extent transmission cable accessories, fluctuate significantly depending on the cost of metals, other market conditions, and foreign currency exchange rates. The cost of copper at the time that the cost estimates were prepared was \$2.72/lb.
- No owners engineering or overhead costs are included in the cost estimates. The owner of the transmission line would be responsible for reviewing the EPC contractor's detailed design calculations, construction drawings, as-built drawings, and other project documentation.
- No field construction inspection costs are included in the cost estimates. The owner or owner's subcontractor would perform construction inspection to insure that the underground transmission line is constructed in compliance with the project specifications.

- The cost estimates do not include the cost of preparing EPC purchase specifications or the engineering effort required to solicit and evaluate EPC proposals for the lines.
- The cost estimates do not include the cost of performance or warranty bonds.

Cost estimates for construction of the underground transmission line include the following costs.

- All material required to construct the underground transmission line including concrete splice vaults, substation galvanized steel cable termination support structure, and surge arresters for each of the cable terminations.
- All civil construction costs required to excavate and backfill trenches and pits for the splice vaults.
- Equipment and labor for pulling/laying the transmission cables
- Equipment and personnel for splicing and termination of the transmission cables
- Field construction supervision for cable installation and civil construction work
- Performing field and laboratory soil thermal resistivity survey.
- Cost of performing post-construction commissioning tests.
- As-built plan and profile drawings of the underground lines.
- Federal import taxes and state sales taxes
- Shipping charges for all material to the construction site.

5.2 Cost Estimate Summary

The budgetary cost estimates for constructing a one-mile long 230 kV, double circuit, 800 MVA underground transmission line for the proposed San Luis Rio Colorado Project using 230 kV XLPE cables is \$15,275,000. The budgetary cost estimate for constructing a one-mile long 230 kV underground transmission line using HPFF pipe-type transmission cables with forced cooling is \$15,738,000. These cost estimates indicate that there would be no significant cost difference for constructing an underground transmission line between underground transmission technologies (XLPE extruded dielectric and HPFF pipe-type cable).

Spreadsheets in Appendix A contain breakdowns of the estimated costs for constructing the 230 kV underground transmission lines.

Appendix A – Detailed Cost Estimates

This appendix contains the cost estimate details for XLPE and HPFF underground transmission alternatives for constructing a one-mile underground 230 kV line to meet the San Luis Rio Colorado power transfer requirements.

COST ESTIMATE FOR SAN LUIS RIO COLORADO 230 XLPE UG TRANSMISSION LINE
 230 kV XLPE Cable Circuits With Two 2000 kcmil Copper Conductor Cables Per Phase

		Date	3/4/07	MVA Rating	800					
Cables Installed In Concrete Encased Duct Banks										
	Route Length (ft.)		5,280	Circuits			2			
	Trench Length (ft)		5,280	Cables Per Phase			2			
	Cables Per Trench		6	Splice Vaults Per Circuit			4			
	Nominal Cable Length (ft)		63,360	3-Ph Terminations			8			
Item	Description	Qty.	Unit	Material	Material	Qty.	Unit	Labor	Labor	Total
1	ROW Prep./Service Roads	-				-			100,000	100,000
2	Trench Excavation (ft, no rock)	10,560		0	0	10,560		45	472,810	472,810
3	Spoil Disposal (cu.yd.)					1,564		10	15,644	15,644
4	Concrete Encasement (cu.yd.)	972		75	72,935	972		10	9,725	82,660
5	PVC Conduits (ft)	95,040		4	380,160	95,040		5	475,200	855,360
6	Splice Vault (ea.)	8		35,000	280,000	8		12,000	96,000	376,000
7	230 kV XLPE 2000 kcmil cable (ft.)	65,362		95	6,209,352					6,209,352
8	Ground continuity conductor (ft)	10,560		3	31,680	5		2,000	10,000	41,680
9	Cable Installation (section pulls)					36		10,000	360,000	360,000
10	Ground conductor installation (sections)					6		4,000	24,000	24,000
11	230 kV terminations (ea.)	24		43,000	1,032,000	24		12,000	288,000	1,320,000
12	230 kV, 1-phase splices (ea.)	24		24,000	576,000	24		12,500	300,000	876,000
13	Cros-Bonding Link Boxes	8		8,140	65,120	8		3,000	24,000	89,120
14	1-Ph Grounding Link Boxes	24		6,270	150,480	24		1,000	24,000	174,480
15	Cable Clamps	216		125	27,000	216		100	21,600	48,600
16	DTS Fiber Optic Enclosures	4		500	2,000	4		200	800	2,800
17	230 kV Surge arresters (ea.)	24		6,000	144,000	24		500	12,000	156,000
18	Cable Termination Structures	2		125,000	250,000	2		5,000	10,000	260,000
19	Mob./Demobi. Cable Contractor (ea.)					2		30,000	60,000	60,000
20	Mobile Office/Storage Areas									75,000
21	Security (man-days)					90		300	27,000	27,000
22	Test & Energization (ea)							Lump Amt.	250,000	175,000
23	Emergency repair parts (lot)	1		344,200	344,200					0
Subtotal					\$9,564,927				\$2,505,779	\$12,145,706
Detailed Engineering (ea.)									\$250,000	\$250,000
Surveys (lot)									\$80,000	\$80,000
Construction Supervision (days)						100		700	\$70,000	\$70,000
Project Management						75		1200	\$90,000	\$90,000
Construction Contingency & Profit (20%)									\$501,156	\$501,156
Material Contingency & Profit (15%)									\$1,434,739	\$1,434,739
Sales Tax				5.60%					\$535,636	\$167,764
Subtotals									\$3,664,698	\$11,535,302
Total Cost										\$15,275,001

COST ESTIMATE FOR SAN LUIS RIO COLORADO 230 HPFF UG TRANSMISSION LINE
 230 kV HPFF Cable Circuits With Two 2500 kcmil Copper Conductor Cables Per Phase

		Date	3/4/07	MVA Rating	800					
Direct Buried Cables and Buried Splice Pits										
	Route Length (ft.)		5,280	Circuits			2			
	Trench Length (ft)		5,280	Cables Per Phase			2			
	Pipes Per Trench		2	Splice Vaults Per Circuit			1			
	Nominal Cable Length (ft)		63,360	3-Ph Terminations			8			
Item	Description	Qty.	Unit	Material	Material	Qty.	Unit	Labor	Labor	Total
1	ROW Prep./Service Roads	-				-			100,000	100,000
2	Trench Excavation (ft, no rock)	10,560		0	0	10,560		64	677,926	677,926
3	Spoil Disposal (cu.yd.)					2,542		10	25,422	25,422
4	Fluidized Thermal Backfill (Cu. Yd.)	1,537		75	115,278	1,537		10	15,370	130,649
5	8" Coated Steel Pipe (ft)	21,120		22	464,640	21,120		25	528,000	992,640
6	Evacuate, Pressure Test Pipe Section	4		5,000	20,000	4		10,000	40,000	60,000
7	Splice Vault (ea.)	1		22,000	22,000	1		12,000	12,000	34,000
8	Splice Corrosion Protection	2		2,000	4,000	2		4,000	8,000	12,000
9	230 kV HPFF 2500 kcmil cable (ft.)	65,362		88	5,751,821					5,751,821
10	5" Coated Steel Pipe	5,280		16	84,480	5,280		15	79,200	163,680
11	Cable Installation (section pulls)					4		15,000	60,000	60,000
12	Dielectric Fluid (Gal.)	21,114		5	105,568	4		20,000	80,000	185,568
13	230 kV terminations (ea.)	24		48,000	1,152,000	24		12,000	288,000	1,440,000
14	230 kV, 3-phase splices (ea.)	2		24,000	48,000	2		22,000	44,000	92,000
15	Polarization Cells	4		5,000	20,000	4		2,000	8,000	28,000
16	Cathodic Protection Rectifiers	2		5,000	10,000	2		2,000	4,000	14,000
17	Pipe Pressurization Units	2		300,000	600,000	2		10,000	20,000	620,000
18	Pipe Fluid Forced Cooling Unit	1		1,200,000	1,200,000	1		28,000	28,000	1,228,000
19	5" Coated Steel Pipe	5,280		16	84,480	5,280		15	79,200	163,680
20	230 kV Surge arresters (ea.)	24		6,000	144,000	24		500	12,000	156,000
21	Cable Termination Structures	2		18,000	36,000	2		5,000	10,000	46,000
22	Mob./Demobi. Cable Contractor (ea.)					2		30,000	60,000	60,000
23	Mobile Office/Storage Areas									75,000
24	Security (man-days)					90		300	27,000	27,000
25	Test & Energization (ea)							Lump Amt.	50,000	50,000
26	Emergency repair parts (lot)	1		346,880	346,880				0	346,880
Subtotal					\$10,209,147				\$2,256,119	\$12,540,266
Detailed Engineering (ea.)									\$250,000	\$250,000
Surveys (lot)									\$80,000	\$80,000
Construction Supervision (days)						100		700	\$70,000	\$70,000
Project Management						75		1200	\$90,000	\$90,000
Construction Contingency & Profit (20%)									\$451,224	\$451,224
Material Contingency & Profit (15%)									\$1,531,372	\$1,531,372
Sales Tax				5.60%					\$153,783	\$725,495
Subtotals									\$3,351,125	\$15,738,356
Total Cost										\$15,738,356

**REPRESENTATIVE PDC TRANSMISSION CABLE
 DESIGN/INSTALLATION PROJECTS
 CURRENTLY UNDERWAY OR RECENTLY COMPLETED
 As of November 2006**

PDC engineers have provided cable engineering services for more than fifty projects and studies, for pipe-type and extruded cable systems, and for both land and submarine cables. Representative current and recent projects are summarized below. Additional experience is highlighted on individual engineer biographies.

<p>PROJECT: 240 kV XLPE Cable System / Directional Drilling Project, Edmonton, Alberta</p> <p>DATES: 2006 – Present</p>
<p>DESCRIPTION: PDC was initially retained to prepare detailed cost estimates for constructing a 10 km long 240 kV XLPE cable underground transmission line into downtown Edmonton from an existing substation. PDC was subsequently selected as a subcontractor for a Canadian architect/engineering firm to complete the detailed design, perform induction coordination and EMF studies, prepare purchase specifications, and assist with the procurement process for this project. The 240 kV cable system includes a segment that will be installed by a 550 meter horizontal directional drilling. PDC will also represent the utility during factory testing and field installation.</p>
<p>ENGINEERS: John Cooper, Robert Wilkinson</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support, construction</p>

Contact: Gary Eggen, EPCOR, (780) 412-3621

<p>PROJECT: 138 kV XLPE Substation Cable System, Ohio</p> <p>DATES: 2006 – Present</p>
<p>DESCRIPTION: PDC was initially retained to prepare detailed cable system and civil construction specifications for a fast track 3000-foot loop feed to a new substation in Delaware County Ohio. PDC worked with a local engineering firm to prepare plan and profile drawings and to assist the client with procurement. PDC represented the client during factory testing of the cable and field construction observation.</p>
<p>ENGINEERS: John Cooper, Robert Wilkinson</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support, construction</p>

Contact: SourceOne/Holder Construction, Tom Converse, (617) 399-6129

<p>PROJECT: 138kV Cable System / Directional Drilling Project, Miami, Florida</p> <p>DATES: 2004 – Present</p>
<p>DESCRIPTION: PDC has been working with a large architect/engineering firm to prepare detailed design information, evaluate routes, consider cable system alternatives and provide general guidance for a 138kV circuit to connect two existing substations located in Miami and Miami Beach. PDC participated in evaluating cable system types (XLPE, Pipe-Type), selecting the best cable system (HPGF) for the project, and are assisting with cable system design. PDC is also supporting the A/E firm and utility to obtain environmental and construction permits for the project. Later phases of the work will include preparation of material and installation specifications, assistance with procurement, and providing engineering support during construction and installation of the cable system.</p>
<p>ENGINEERS: Earle C. (Rusty) Bascom, III</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support</p>

Contact: James Sells, Jacobs Civil, Inc., (305) 392-5184, Jim.Sells@jacobs.com

<p>PROJECT: 138kV Cable System Design and Magnetic Field Study, Spring Valley, New York</p> <p>DATES: 2004 – Present</p>
<p>DESCRIPTION: PDC was contracted by the utility to perform cable design and evaluate cable installation options that would best manage magnetic fields for a project to underground a 3000-foot section of an existing overhead line through a local community which requested the utility to place the line underground. The project included advising the utility on a route thermal survey, performing ampacity calculations and a series of magnetic field analyses. PDC also prepared cable material and installation specifications that were used by the utility to procure cable and installation services. Civil works were started recently, and cable installation activities are scheduled to occur early in 2006.</p>
<p>ENGINEERS: Earle C. (Rusty) Bascom, III, John H. Cooper</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support</p>

Contact: Rick Piteo, Orange & Rockland Utilities, (845) 577-3624, rpiteo@oru.com

<p>PROJECT: 138 kV Extruded Dielectric Cable Project, Ohio</p> <p>DATES: 2003 - 2004</p>
<p>DESCRIPTION: AEP installed a 138-kV extruded-dielectric cable line in Dublin, Ohio. PDC was retained to perform the conceptual analysis, prepare specifications, assist in procurement, and provide engineering and construction support throughout the project.</p>
<p>ENGINEERS: John H. Cooper, Jay A. Williams, and Robert O. Wilkinson</p>
<p>FUNCTION: Cable engineering consulting services; design feasibility, specifications, procurement support</p>

<p>PROJECT: 138kV XLPE Cable Project – Miami, Florida</p> <p>DATES: 2004 – Present</p>
<p>DESCRIPTION: PDC was hired by the utility to perform design calculations, prepare material and installation specifications, provide general guidance during all phases of construction, assist with procurement, including bid evaluation, and provide support during cable system installation. This project involved the installation of two short 138kV cable circuits into a new substation in North Miami that connect to adjacent overhead lines. Compact transition structures were utilized for this project to minimize the footprint of underground-to-overhead transition facilities outside the station. Cable procurement has been completed, and civil works are progressing so that the cables may be installed later this year.</p>
<p>ENGINEERS: Earle C. (Rusty) Bascom, III</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support</p>

Contact: Robert Hahn, Florida Power & Light

<p>PROJECT: 69kV XLPE Cable Design and Procurement Support – Wilmarth Substation (Mankato, MN)</p> <p>DATES: 2004 – Present</p>
<p>DESCRIPTION: PDC was contracted by Xcel Energy to perform cable system design studies, assist with soil thermal testing, prepare cable and installation specifications, pre-qualify suppliers, evaluate bids, and provide general engineering support during construction. This project involves three short 69kV XLPE cable circuits to replace overhead line connections between Xcel Energy’s 69kV and 138kV stations in Wilmarth Substation. PDC studies included ampacity calculations, review of soil thermal data, pulling tension calculations, and evaluation of install options for the project to minimize outages during construction. Civil engineering work is proceeding currently, and cable materials procurement and installation will occur in the next 6 months.</p>
<p>ENGINEERS: Earle C. (Rusty) Bascom, III</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support</p>

Contact: Mark Gutzmann, Xcel Energy, (612) 330-6092

<p>PROJECT: 138 kV Extruded Dielectric Cable Project, Sandy City Utah</p> <p>DATES: 2004 - 2005</p>
<p>DESCRIPTION: PacifiCorp installed a 138-kV extruded-dielectric cable line in Sandy City Utah across a city park and in city streets. PDC was retained to perform the conceptual analysis, prepare specifications, assist in procurement, and provide engineering and construction support throughout the project.</p>
<p>ENGINEERS: John H. Cooper</p>
<p>FUNCTION: Cable engineering consulting services; design feasibility, specifications, procurement support</p>

<p>PROJECT: 230 kV Extruded Dielectric Cable Project, Baltimore, Maryland</p> <p>DATES: 2004</p>
<p>DESCRIPTION: PDC worked with a large architect engineering firm to evaluate placing sections of an overhead transmission line underground using 230kV XLPE cable. The project required route evaluation, design calculations and preparation of budgetary costs for the project.</p>
<p>ENGINEERS: Earle C. (Rusty) Bascom, III</p>
<p>FUNCTION: Cable engineering consulting services; design feasibility</p>

Contact: Subir Roy, Sargent & Lundy, (312) 269-7182

<p>PROJECT: 138-kV XLPE Cables, Westchester, New York</p> <p>DATES: 2002 – 2003</p>
<p>DESCRIPTION: PDC worked with an architect-engineering firm to evaluate cable routes and perform various cable system design studies for 5 circuits along 2.4-mile and 1.8 mile routes. Studies included ampacity, pulling tensions, and development of system parameters, as well as supporting the A/E firm in selecting the route and specifying the route alignment. PDC prepared cable material and installation specifications for the project. The cables were energized in 2003.</p>
<p>ENGINEERS: Earle C. (Rusty) Bascom, III</p>
<p>FUNCTION: Cable engineering consulting services, specifications, procurement support</p>

Contact: Arnold Wong, Consolidated Edison Company of New York, (212) 460-4189

<p>PROJECT: Proposed 345-kV XLPE Installation, Northern United States</p> <p>DATES: 2001-present</p>
<p>DESCRIPTION: A utility is looking to increase reliability in southern Connecticut by the installation of a 70-mile 345kV circuit that includes sections of underground transmission. PDC is working with the utility and architect-engineer to evaluate cable system alternatives and cable routes that minimize impact on the neighboring communities.</p>
<p>ENGINEER: Jay A. Williams</p>
<p>FUNCTION: Cable engineering design; equipment specifications; construction specifications.</p>

Client Contact: Peter Tirinzoni, Northeast Utilities, 860 665-3254

<p>PROJECT: Proposed 230-kV XLPE Installation, Western United States</p> <p>DATES: 2000</p>
<p>DESCRIPTION: A major utility is proposing to install its first 230-kV XLPE cable system consisting of two 400-MVA lines over a distance of 2.7 miles through city streets and rural areas. PDC was retained to perform a conceptual design and prepare a “white paper” for hearings, evaluating all aspects of the XLPE cable system and making comparisons to pipe-type cables. PDC is representing the utility in the hearings.</p>
<p>ENGINEER:. John H. Cooper, Jay A. Williams</p>
<p>FUNCTION: Conceptual design; preparing white paper, representing the utility in hearings.</p>

Utility Contact: (This project is presently confidential.)

<p>PROJECT: Proposed 345-kV XLPE Installation, Northern United States</p> <p>DATES: 1999-present</p>
<p>DESCRIPTION: An independent power producer is proposing a 2.5 to 5 mile long 345 kV cable system to carry the output of a proposed new plant in central Wisconsin. PDC developed a conceptual design, performed engineering studies, and prepared a formal report used by the power producer as part of its application. The cable system will consist of two lines, plus an installed spare. Detailed analysis was performed to be able to replace a failed cable with the spare, without causing major unbalance in power flows among the cables.</p>
<p>ENGINEER:. Jay A. Williams</p>
<p>FUNCTION: Cable engineering design; equipment specifications; construction specifications.</p>

Client Contact: Mr. William T. Caudle, PG&E-Gen. Tel 301 280-6940

<p>PROJECT: 115-kV XLPE Installation, Caribbean</p> <p>DATES: 1999-present</p>
<p>DESCRIPTION: The utility serving the San Juan area of Puerto Rico intends to build an 30km 115kV underground cable circuit to address increased load and enhance power reliability on the island as an overall loop to reinforce power in San Juan. The cable system will consist of conventional duct bank installed sections and directional drilling. A preliminary design was performed for underground cable circuit alternatives for the first 8km phase 115kV cross-linked polyethylene cable circuit in the City of San Juan. Project requirements include the evaluation of cable designs, selection of route alternatives including consideration for directional drilling, economic evaluation of material and installation costs, and a preliminary assessment of geotechnical data that may affect the performance of the cable system. PDC evaluated cable alternatives and recommended soil testing as part of preparing the detailed specification that was provided to cable suppliers. The on-going project includes evaluation of bids and quality assurance tasks during construction and installation.</p>
<p>ENGINEER:. Earle C. Bascom, III</p>
<p>FUNCTION: Cable engineering design; equipment specifications; construction specifications.</p>

Client Contact: Mr. Angel T. Rodriguez Barroso, Puerto Rico Electric Power Authority (Autoridad de Energia Electrica de Puerto Rico) [Mr. Rodriguez is no longer with PREPA]

<p>PROJECT: 138 kV XLPE Cable Airport Dip, Northeastern United States</p> <p>DATES: 1999</p>
<p>DESCRIPTION: A utility installed a 138 kV transmission line which passes near an airport requiring a 500 dip in a section of the line. The underground transmission line was directly buried in a dedicated right of way. The terminations were pole mounted to minimize land requirements. The utility awarded separate contracts for the underground transmission cable and for construction activities. Power Delivery Consultants, Inc., assisted the utility in a preliminary system design, preparation of purchase specifications, review of proposals, and pre-contract negotiations. PDC assisted the utility during factory inspection, review of contractor design calculations, and final commissioning of the circuit.</p>
<p>ENGINEER:. John H. Cooper</p>
<p>FUNCTION: Cable engineering design; equipment specifications; construction specifications.</p>

Utility Contact: Mr. Larry Mattei, Allegheny Power Systems, (724) 838-6230

<p>PROJECT: 115-kV Undergrounding, Northern United States</p> <p>DATES: 1999 - present</p>
<p>DESCRIPTION: Existing overhead lines must be placed underground as part of a major runway expansion. PDC was retained to design the cable system, prepare cost estimates for a variety of options, prepare material to be used in the line application, prepare cable specifications, and assist the utility in procuring and installing the cable. Two lines must be installed, each with 1600 ampere capacity.</p>
<p>ENGINEER:. Jay A. Williams, Earle C. Bascom, III</p>
<p>FUNCTION: Cable engineering design, costing; equipment specifications; construction specifications, procurement assistance, guidance during installation</p>

Utility Contact: Mr. David Berklund, Northern States Power, 612 330-6826

<p>PROJECT: 138 kV XLPE Cable Substation Generator Leads and Bus Ties, Southwestern US</p> <p>DATES: 1999</p>
<p>DESCRIPTION: This utility is adding a fourth generation unit at a cogeneration facility. PDC assisted the utility in preparations of cost estimates, cable system design, and subsequent turnkey specifications for installation of two, 138 kV bus ties and a 600' connection from the generator unit transformer to the substation ring bus.</p>
<p>ENGINEER:. John H. Cooper</p>
<p>FUNCTION: Cable engineering design; turnkey specifications; oversaw civil works design.</p>

Utility Contact: Mr. David Wahl, Central & Southwest Services, (918) 594-4213

PROJECT: Emergency Repair and Replacement of 28 Year Old 69-KV XLPE Cable
DATES: 1999 - 2000
DESCRIPTION: A 69 kV XLPE transmission cable dip at a ship channel dip failed after 28 years of service. PDC assisted the client in conducting emergency repairs to the cable and subsequent replacement of the 69 kV cable with a 138 kV XLPE cable. PDC prepared turnkey specifications, represented the client during factory testing of the cable and provided field inspection services during construction.
ENGINEER:. John H. Cooper
FUNCTION: Cable engineering design; turnkey specifications; oversaw civil works design.

Utility Contact: Mr. Marvin Polasek, Central & Southwest Services, (918) 594-4197

PROJECT: Potential 230-kV River Crossing, North-Central United States
DATES: 1998 - Present
DESCRIPTION: A proposed 230-kV overhead transmission must cross a river that is a protected waterway. PDC performed cable designs for extruded, HPFF, and SCFF cables. We and our subconsultants analyzed use of trenchless technologies (both microtunneling and horizontal directional drilling) and conventional technologies for crossing the river. We prepared testimony and represented the utility in hearings.
ENGINEER:. Jay A. Williams
FUNCTION: Cable engineering design; oversaw civil works design. Presented testimony.

Utility Contact: Mr. Mark Moeller, Northern States Power, 612 330-6773

PROJECT: Transmission Line Relocation , South-Central United States
DATES: 1998 - Present
DESCRIPTION: An existing 138 kV overhead transmission line is to be relocated due to expansion of an interstate highway. PDC is providing engineering support to prepare preliminary design and cost estimates for replacing and relocating the overhead line with underground transmission.
ENGINEERS:. John H. Cooper
FUNCTION: Provider of engineering services for the transmission cable system.

Utility Contact: Mr. Darrell Sumbera Houston Lighting & Power (713) 207-4546

PROJECT: New Supply to Resort Island , South-Central United States
DATES: 1998 - Present
DESCRIPTION: Additional transmission capacity was needed to reinforce the bulk power supply to a residential and resort island located several miles from the mainland. PDC assisted the utility with conceptual design of the submarine cable option, support at public meetings for the project, and preparation of turnkey specifications.
ENGINEERS: John H. Cooper
FUNCTION: Provider of engineering services for transmission cable system.

Utility Contact: Mr. Richard Raymond, Reliant Energy HL&P (713) 207-6496

PROJECT: 138-kV HPGF Cable – Northern United States 1997 - Present
DESCRIPTION: A utility needed to evaluate its first potential transmission cable project. PDC presented a course to the utility and representatives from the state public service commission. We evaluated alternative technologies, performed detailed design, prepared specifications, prequalified bidders for material and for installation, evaluated bids, and worked with the utility to award the contract. The utility has assigned an engineer to this project full-time. That engineer is performing much of the project work under the tutelage of an experienced PDC transmission cable design engineer.
ENGINEERS: Richard W. Allen, Jr., Jay A. Williams
FUNCTION: Provider of engineering services for the transmission cable system.

Utility Contact: Mr. Dave Valine; Wisconsin Public Service Corporation 920 433-1611

PROJECT: 230kV XLPE Project - Indonesia 1996 – 1997
DESCRIPTION: A mining operation in the Indonesia province of Irian Jaya required the construction of a 230kV transmission circuit between a newly installed power plant on the coast and a copper and gold ore processing plant located 100km inland. A PDC engineer performed an evaluation of cable system alternatives, detailed engineering, and voltage selection studies, prepared 230kV XLPE cable technical specification and RFP package, evaluated cable supplier bids and prepared recommendations, and assisted in design of civil works and termination support structure design. The circuit was commissioned in late 1997. There were several unique challenges to this project, many of which resulted from the remote location for the cable circuit installation. This project was part of overall system integration studies and electrical design of the double-circuit overhead line which connects a generation station near the coast to a ore processing facility inland. To avoid air traffic interference near Timika Airport, 2km, double circuit, of underground cable was installed.
ENGINEERS: Earle C. Bascom, III
FUNCTION: Provider of engineering services for the transmission cable system.

Utility Contact: Mr. Mark Hanson, Mr. Gordon Moore, PT Freeport Indonesia

<p>PROJECT: 138-kV Extruded-dielectric Cables, South-Central United States</p> <p>DATES: 1996 - 1999</p>
<p>DESCRIPTION: A utility installed its first transmission cable circuit, approximately 3500 feet of 138-kV XLPE cable, including a river crossing installed with a 32-inch diameter guided bore. PDC performed initial studies, including cable type selection, ampacity and pulling tension calculations, guided boring design, and conceptual design of transition structures. PDC hired Geotherm, Inc. as a subcontractor for soil thermal work on land and water sections of the line. PDC also coordinated the services of other subcontractors, prepared bid specifications, recommended bidders, issued specifications, participated in pre-bid meetings, evaluated bids, and worked with the utility to award the contract. We provided guidance when requested during installation, prepared an O&M manual, and presented O&M training to utility engineering and field personnel.</p>
<p>ENGINEERS: Jay A. Williams, Richard W. Allen, Jr., John H. Cooper</p>
<p>FUNCTION: Provider of engineering services for the transmission cable system.</p>

Utility Contact: Mr. Dan Runyan, Central and South West Services, 918 594-4130

<p>PROJECT: 138-kV High-Pressure Gas-Filled Cables, Southeastern United States</p> <p>DATES: 1994 - 1997</p>
<p>DESCRIPTION: A utility installed two 3-mile, 138-kV cable circuits to replace existing overhead lines and a section of unreliable extruded-dielectric cable. The lines traverse residential and commercial areas, and will use guided borings at several major highway crossings.</p> <p>PDC is providing cable engineering services for this project, as a subconsultant to a major architect-engineer. PDC work includes initial system design and cable type recommendation, route selection, ampacity and pulling tension calculations, assistance in procurement and contractor selection. PDC is called upon as needed during construction operations.</p>
<p>ENGINEERS: Richard W. Allen, Jr., Jay A. Williams</p>
<p>FUNCTION: Major provider of engineering services for the transmission cable system.</p>

Utility Contact: Mrs. Gloria Hamblin-Cobb, Orlando Utilities Commission, 407 384-4177

A-E Contact: Mr. Steve Gray R.W Beck, 508 935-1680

<p>PROJECT: 138- to 345kV Transmission Cable System, Northeastern United States</p> <p>DATES: 1993 - Present</p>
<p>DESCRIPTION: The utility has retained PDC to conduct several engineering analyses of existing self-contained fluid-filled and pipe-type cable systems. This work has included ampacity analyses, hydraulic analyses including field work, preparing operation and maintenance manuals and presenting courses to utility engineers and mechanics. PDC has also performed technical and economic analyses of several potential cable projects, and prepared and presented testimony on behalf of the utility.</p>
<p>ENGINEERS: Richard W. Allen, Jr., Jay A. Williams, John H. Cooper</p>
<p>FUNCTION: Provider of engineering services for the transmission cable system.</p>

Utility Contact: Mr. David Campilii, New England Electric Co. Tel. 508 389-2942

<p>PROJECT: 138-kV High-Pressure Fluid-Filled Cables, Far Western United States.</p> <p>DATES: 1994 - Present</p>
<p>DESCRIPTION: Two 138-kV high-pressure fluid-filled cable circuits are being installed in a major metropolitan area. PDC is providing engineering services for all phases of design, specifications, procurement, installation, and O&M training. The utility is providing services such as permitting, field surveying, drawing preparation, etc.</p> <p>Because of route constraints, the two pipe-type circuits must share a trench with ten distribution-voltage circuits. The project requires making provisions for a future tap to a new substation, as well as providing hydraulic coordination with existing circuits. Hydraulic considerations include a 600-ft elevation head, which will require stop joints and special provisions to prevent fluid migration. The system will include both slow and rapid fluid circulation.</p> <p>PDC is also performing magnetic field calculations and measurements, in support of the utility's application for permits for the line.</p>
<p>ENGINEER: Jay A. Williams, Richard W. Allen, Jr., John H. Cooper</p>
<p>FUNCTION: Principal provider of engineering services to the utility.</p>
<p>COMMENT: One major goal of this project is for PDC engineers to train the utility engineers on all aspects of cable engineering, so the utility can undertake these projects on its own in the future while requiring PDC services only for special analyses.</p>

Utility Contact: Mr. Paul A. Nakagawa, Hawaiian Electric Company 808 543-7062

<p>PROJECT: 115/230 Transmission Cable System, Northeastern United States</p> <p>DATES: 1995 - 1996</p>
<p>DESCRIPTION: A utility's architect-engineer had recommended an XLPE cable system for a 1.5 mile line. The state Department of Public Service retained PDC to review the application. PDC evaluated alternatives and recommended a HPGF cable system that had many advantages, including lower cost and ability to uprate to 230-kV by reconductoring the pipe. PDC's design was adopted by the utility and the line was successfully installed according to that design.</p>
<p>ENGINEERS: Jay A. Williams</p>
<p>FUNCTION: Transmission cable system design</p>

Client Contact: Mr. Tom Dunn, Vermont Department of Public Service, 802 828-4007

<p>PROJECT: 138-KV XLPE CABLES, SOUTHWESTERN UNITED STATES DATES: 1992 -1995</p>
<p>DESCRIPTION: A municipal utility installed a 138 kV transmission line which passes near an airport requiring a quarter mile dip in a section of the line. The underground transmission line must have a continuous rating of 1800 amperes which resulted in a double circuit duct bank installation. The terminations were pole mounted to minimize land requirements. The utility awarded a full turnkey contract to a cable manufacturer for the project. Power Delivery Consultants, Inc., assisted the utility in a preliminary system design, preparation of purchase specifications, review of proposals, and pre-contract negotiations. PDC assisted the utility during factory inspection, review of contractor design calculations, and final commissioning of the circuit.</p>
<p>ENGINEER: John H. Cooper</p>
<p>FUNCTION: Provide engineering consulting for all phases of the project</p>

Client Contact: Mr. Gilbert W. Smith, City of Austin, Texas, Telephone 512 322-6421.

<p>PROJECT: 138-kV XLPE Submarine Cable, Southwestern United States DATES: 1989 - 1992</p>
<p>DESCRIPTION: A utility installed a 138-kV extruded dielectric submarine cable to improve service reliability to a resort island. The cable circuit consisted of one mile of conventional land cable and 7.5 miles of submarine cable which passed through environmentally sensitive areas. With our guidance, the utility awarded a turnkey contract to an offshore cable manufacturer for the supply and installation of the cable system. Cable engineering support was provided to the utility in preliminary planning studies to prepare budgetary cost estimates and to recommend the most suitable cable types for this application. We provided assistance to the utility in preparations of purchase specifications, review of proposals, assistance during contract negotiations, assistance during construction permit hearings, review of final design calculations and construction drawings, witnessing of factory acceptance tests, construction inspection, commissioning of the circuit, and review of as-built drawings and documentation.</p> <p>In an earlier phase of the project, we evaluated technical, economic, and environmental implications of each cable type which would be considered for use on this submarine cable project, and did preliminary field measurements for soil thermal properties. This work included novel approaches such as roller-skate installation of pipe-type cables in multi-mile lengths of steel pipe casings.</p>
<p>ENGINEERS: John H. Cooper, Jay A. Williams</p>
<p>FUNCTION: Primary engineering responsibility for all phases of the cable project</p>

Client Contact: Mr. Marvin J. Polasek, Central and Southwest Services 908 594-4197

JOHN H. COOPER - PRINCIPAL ENGINEER

John Cooper received a BS in Electrical Engineering from Texas A&M University in 1967, and a Master of Science in Electrical Engineering from the University of Pittsburgh in 1968. He joined Westinghouse Electric in 1967, and held general engineering and technical management positions there until he went to work for Power Technologies, Inc. in 1988. Mr. Cooper was a Senior Consultant at PTI where he worked primarily in the areas of underground transmission cable engineering and the design of electrical testing facilities. He then became a co-founder of Power Delivery Consultants, Inc. in 1992, where he specializes in underground transmission cable engineering.

Mr. Cooper worked for the Westinghouse Advanced Systems Technology Department, performing a variety of power systems planning studies for electric utilities in the United States and Canada. He was then transferred to the Waltz Mill Underground Transmission Test Facility. In this position he was responsible for conducting long-term accelerated aging tests on extruded-dielectric and pipe-type cable systems.

In 1979, Mr. Cooper became Manager of the EPRI Waltz Mill Underground Transmission Test Facility. In this position, he was responsible for the installation, testing, and evaluation of cables and cable accessories which were developed by contractors for EPRI and the U.S. Department of Energy. Starting in 1985, he also managed the EPRI EHV Testing Laboratory in Yonkers, New York. The Yonkers EHV Lab performs research and development tests for EPRI as well as commercial acceptance tests for cable systems and other high-voltage equipment.

At PTI, Mr. Cooper worked as a consultant to electric utilities on the design, specification, and installation of transmission cable systems. He has worked with utilities in all areas of a cable project, ranging from feasibility studies, to field construction inspection and final acceptance testing. He worked on numerous research projects for the Electric Power Research Institute related to transmission cables. Mr. Cooper was also author for two chapters of EPRI's *Underground Transmission Systems Reference Book - Cable Testing and Utility System Considerations*.

In recent years, Mr. Cooper has provided cable engineering services to domestic and foreign electric utilities in the design, specification, and acceptance testing of underground transmission lines. He has been PDC's project manager for numerous XLPE transmission cable projects for system voltages ranging from 115 kV to 345 kV.

He was co-author of the "EMF Management for Transmission Cables" chapter of the EPRI Electric and Magnetic Field Management Reference Book published in 2000 and is chairman of the IEEE ICC working group on Underground Cable Magnetic Fields.

Mr. Cooper is a Fellow of the IEEE, Power Engineering Society and is a Voting Member of the IEEE Insulated Conductors Committee (ICC) and a member of CIGRE. He is a past Chairman of the ICC Cable Systems Subcommittee. He is a Registered Engineer in the States of Pennsylvania, Georgia, New Mexico, and Texas.

APPENDIX C

SCOPING MEETING AND PUBLIC HEARING NOTICES

The proposed San Luis Rio Colorado Project

YUMA COUNTY, ARIZONA

What is the San Luis Rio Colorado Project?

Generadora del Desierto S.A. de C.V. is building a new 550-Megawatt nominal (605-MW peaking) natural gas-fired, combined cycle power generating facility located approximately 3 miles east of San Luis Rio Colorado, Sonora, Mexico, and about one mile south of the international border.

The applicant wants to sell electricity in both Mexico and the United States and is applying to DOE for a Presidential permit to construct two 500,000-volt electric transmission lines across the United States border from Mexico. North Branch Resources, LLC, a partner in the proposed project, is applying to interconnect with Western's transmission system in the Yuma area.

The applicants are each wholly owned subsidiaries of North Branch Holding, LLC. GDD proposes to construct, own, operate and maintain the power plant in Mexico and the short section of transmission line located in Mexico. The applicants propose that Western construct, own, operate and maintain the double-circuited 500-kV transmission components in the United States, at the applicants' expense.

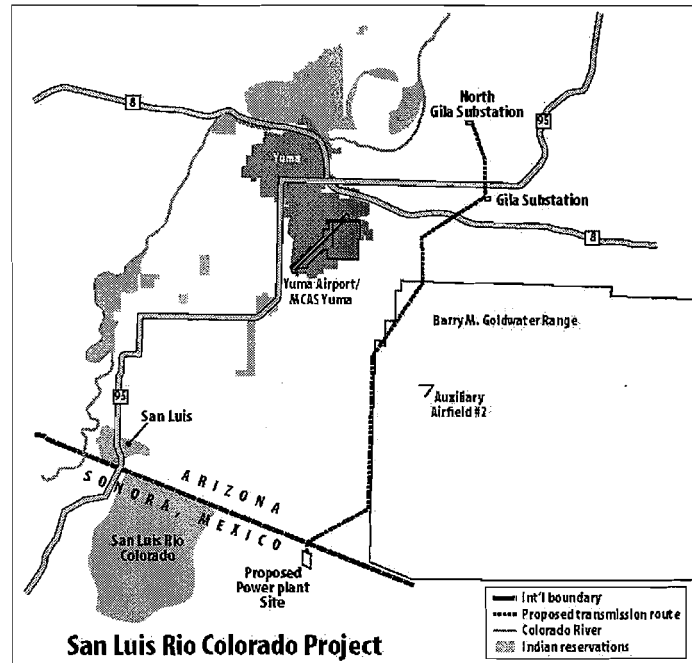
In response to the interconnection request to Western, the transmission line would interconnect with Western's transmission system through a 500/161-kV expansion at Gila Substation, located east of Yuma. Under the proposal, Western would construct, own, operate and maintain the 500-kV transmission line between a Point of Change of Ownership near the international border and the Gila Substation, the 500/161-kV expansion at Gila Substation, and the 500-kV transmission line between Gila Substation and Arizona Public Service Company's North Gila Substation. In that case, Western would become a co-applicant on the Presidential permit application.

Why are DOE and Western involved in this project?

Interconnection request

Federal Energy Regulatory Commission Orders No. 888 and 888-A require all public utilities owning or controlling interstate transmission facilities to offer non-discriminatory open access transmission services. Through these Orders, FERC addressed the need to encourage lower electricity rates by facilitating the development of competitive wholesale electric power markets through the prevention of unduly discriminatory practices in providing transmission services.

To be consistent with these orders, Western published a Final Open Access Transmission Service Tariff in the *Federal Register* on Jan. 6, 1998. Western filed an amendment to the Tariff with FERC on Jan. 25, 2005, to adopt Large Generator Interconnection rules that substantially conform with those published by



FERC. Western's amended Tariff requires Western to respond to an application as presented by an applicant. Section 211 of the Federal Power Act requires that transmission services be provided upon application if transmission capacity is available.

In compliance with FERC's rules, Western has committed to accommodating new transmission capacity constructed by an applicant. NBR requested an interconnection to the Federal transmission system under Western's Tariff. Western must determine whether to grant or deny the interconnection while considering effects of the proposed project on existing customers, the environment, system reliability, and any system modifications needed to accommodate the interconnection. If the interconnection request is granted and the proposed project proceeds, Western would construct, own, operate and maintain any required modifications to its own transmission system within the United States at the expense of NBR.

Because the proposed project would integrate a major new source of generation into Western's transmission system, Western has determined that an EIS is required under DOE's NEPA Implementing Procedures, 10 CFR part 1021, Subpart D, Appendix D, class of action D6.

Presidential Permit request

GDD has applied to DOE for a Presidential permit to construct two 500-kV electric transmission lines across the United States border from Mexico. Executive Order 10485, as amended by Executive Order 12038, requires that a Presidential permit be

issued before electric transmission facilities may be constructed, operated, maintained, or connected at the U.S. international border. The Executive Order provides that a Presidential permit may be issued after a finding that the proposed project is consistent with the public interest and after concurrence by the U.S. Departments of State and Defense.

In determining consistency with the public interest, DOE considers the environmental impacts of the proposed project under NEPA, determines the project's impact on electric reliability (including whether the proposed project would adversely affect the operation of the United States electric power supply system under normal and contingency conditions), and any other factors that DOE may also consider relevant to the public interest. Issuance of a Presidential permit indicates that there is no Federal objection to the project, but does not mandate that the project be completed.

What decisions will be made?

Western will use the EIS, along with other factors, to determine whether to approve its participation in the facility. DOE will make a separate decision to approve the presidential permit request. Western will contact other Federal, state, local, and tribal agencies during the scoping period to solicit their input and participation in the EIS process.

What project activities are planned outside the United States?

Inside Mexico, GDD plans to construct and operate a new 550-Megawatt (MW) nominal (605-MW peaking) natural gas-fired, combined cycle power generating facility located approximately 3 miles east of San Luis Rio Colorado, Sonora, Mexico, and about 1 mile south of the international border.

While this facility is not subject to the United States' regulatory requirements, DOE will evaluate impacts within the United States from its operation as part of its impact analysis. GDD plans to construct the power generating facility to comply with applicable United States environmental standards in addition to those of Mexico's Instituto Nacional de Ecología.

The planned generating facility would be equipped with advanced air emissions control technology, including low-NOx combustion technology and a selective catalytic reduction system for oxides of nitrogen, and catalytic oxidizers for carbon monoxide emissions control. The generating facility's primary source of water would be treated effluent from the San Luis Rio Colorado water treatment plant, and GDD would construct a pipeline system connecting the two facilities. A natural gas pipeline approximately six miles long would be constructed from the generating facility to an existing main gas line.

What will the EIS address?

In the EIS, DOE will examine public health and safety effects and environmental impacts within the United States from the proposed transmission facilities and from the associated Mexico generating facility. The EIS will be prepared under the requirements of the Council on Environmental Quality's National Environmental Policy Act Implementing Regulations (40 CFR parts 1500-1508) and DOE's NEPA Implementing Procedures (10 CFR part 1021).

Because the project involves action in a floodplain, the EIS will include a floodplain assessment and floodplain statement of findings following DOE regulations for compliance with floodplain and wetlands environmental review (10 CFR part 1022). Tribal governments and Federal, state, and local agencies with special expertise or jurisdiction over the proposed project are being invited to become cooperating agencies on the EIS.

Potential environmental issues within the United States that DOE has tentatively identified for analysis include:

- Impacts on protected, threatened, endangered, or sensitive species of animals or plants or their critical habitats (including flat-tailed horned lizard and Peirson's milk-vetch)
- Impacts on other biological resources
- Impacts on land use, recreation, and transportation (including agriculture, urban development and the planned Area Service Highway)
- Impacts on floodplains and wetlands
- Impacts on cultural or historic resources and tribal values
- Impacts on human health and safety (including military, civilian, and agricultural aviation safety)

- Impacts on air, soil, and water resources (including air quality, groundwater consumption, and quality)
- Visual impacts
- Socioeconomic impacts and disproportionately high and adverse impacts to minority and low-income populations.

This list is not intended to be all-inclusive or to imply any pre-determination of impacts, and DOE invites interested parties to suggest specific issues within these general categories, or other issues not included above, to be considered in the EIS. Since the EIS would be prepared in compliance with U.S. law, it will only address impacts that would accrue in the United States.

NEPA does not require an analysis of environmental impacts that occur within another sovereign nation that result from approved actions by that sovereign nation. Executive Order 12114 (January 4, 1979) requires Federal agencies to prepare an analysis of significant impacts from a Federal action in certain defined circumstances and exempts agencies from preparing analyses in others. The Order does not require Federal agencies to evaluate impacts outside the United States when the foreign nation is participating with the United States or is otherwise involved in the action.

Here, the Mexican Government has been involved in evaluating the environmental impacts associated with the generating facility in Mexico and has issued permits authorizing the construction and operation of the generating facility and ancillary facilities, including water use. An overview of the permitting of the generating facility and associated environmental impacts analysis that was performed by the Mexican government will be included in the Draft EIS.

GDD plans to sell off-peak power inside Mexico to the association of maquiladoras (fabrication or assembly plants in the North American Free Trade Agreement zone) of San Luis Rio Colorado and also to the Comision Federal de Electricidad, Mexico's national electric utility. GDD would construct, own, operate and maintain a section of transmission line in Mexico to a point to be determined (Point of Change of Ownership).

What does Western need from you?

Western needs members of the public, tribes and Federal, state, local, and tribal agencies to identify issues and concerns to help us refine the preliminary alternatives and issues and to eliminate from detailed study those alternatives and environmental issues that are not feasible or pertinent. All comments received will be considered and used to shape the EIS process. Because the project involves action in a floodplain, the EIS will address floodplain and wetlands impacts per DOE regulations for compliance with floodplain and wetlands environmental review.

Can I comment if I can't attend a scoping meeting?

You can also send us a letter, listing your concerns, issues or questions, or call the Western contact below. If we do not hear otherwise from you, we'll keep your name on the project's mailing list for future EIS-related announcements.

Western needs your input by mid March to help us define the scope for the EIS.

You may also provide comments on the proposed project throughout the EIS process. Send your comments to: Mr. John Holt, Environment Manager, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, fax: 602-605-2630, e-mail: holt@wapa.gov.

What other alternatives will be considered?

DOE will consider any additional reasonable alternatives that result from comments received in response to the scoping process. To be considered reasonable, alternatives would need to meet the applicants' and Western's purpose and need, and be technically feasible and economically viable. DOE will also consider reasonable alternatives that may be identified later in the EIS process.

The EIS will also consider the environmental impacts of the "No Action" alternative. Under the No Action alternative, the EIS will analyze the impacts associated with not approving an interconnection agreement and not issuing a Presidential permit.

Will there be other opportunities to provide comments?

DOE anticipates the EIS process will take about 14 to 16 months and will include the public information and scoping meetings; consultation and involvement with appropriate Federal, state, and local agencies, and tribal governments; public review and hearing(s) on the published Draft EIS; a published Final EIS; and publication of a Record of Decision.

After analyzing public concerns and possible impacts from the proposed project, Western in consultation with the cooperating agencies, will issue a Draft EIS. You will have 45 days to review this report and provide comments on it. Western expects the Draft EIS will be available for review in the fall of 2006.

Western will host a public hearing to receive comments on the Draft EIS during the review period. Western will then review these comments before preparing a Final EIS. You will have another 30 days to review the final EIS. Western expects to issue the Final EIS in early 2007. Western and DOE will then make individual decisions on whether to move forward with their actions related to the proposed project. Agency decisions on the proposed facility are expected soon after. If approved, construction would follow the agencies' decisions.

When and where will scoping meetings be held?

Scoping meetings will be held at the Yuma Civic and Convention Center, 1440 West Desert Hills Drive in Yuma, AZ on Feb. 28, and at the San Luis High School, 1250 North 8th Avenue in San Luis, AZ on March 1, 2006. The facilities are wheelchair accessible, and a Spanish-speaking representative will be present.

Meeting times are:

- Feb. 28, 9 a.m. to 4 p.m. and 6 to 9 p.m., in Yuma
- March 1, 9 a.m. to 4 p.m. and 6 to 9 p.m., in San Luis

The scoping meetings will be structured as informal open houses. They will provide interested parties the opportunity to view proposed project and EIS process information, ask questions, and make comments. DOE and cooperating agency representatives will be available to answer questions and provide additional information to attendees.

How can I learn more?

Call or write Mark Wieringa, NEPA Document Manager, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228-8213, phone: 720-962-7448, fax: 720-962-7263, e-mail: wieringa@wapa.gov.

For project information in Spanish, contact Ms. Enoe Marcum, Environmental Specialist, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, phone: 602-605-2422, fax: 602-605-2414, e-mail: marcum@wapa.gov.

For information on the Presidential permit process, contact Mrs. Ellen Russell, Office of Electricity Delivery and Energy Reliability (OE-20), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, D.C. 20585-0350, phone: 202-586-9624, fax: 202-586-5860, e-mail: ellen.russell@hq.doe.gov.

What proposed action and alternatives are being considered?

Western is evaluating the environmental impacts of a proposed project to interconnect with its transmission system in the Yuma, Arizona, area. Western received a request from Generalodoro del Desierto S.A. de C.V. and North Branch Resources, LLC, who plan to build a power plant just across the international border in Sonora, Mexico that would interconnect with Western's Gila Substation and Arizona Public Service's North Gila Substation.

Western considers the 500-kV transmission facilities south of Gila Substation, the Proposed Point of Interconnection, to be interconnection facilities for the sole use of the applicants, while the path between Gila Substation and North Gila Substation is a network upgrade benefiting the integrated transmission system.

The interconnection facilities will consist of the interconnection customer's interconnection facilities, owned by GDD, and transmission provider's interconnection facilities, owned by Western. GDD has received an authorization from Comision Reguladora de Energia, Mexico's energy regulatory commission, to export electric energy to the United States and GDD proposes to deliver on-peak electrical power into the United States in the vicinity of Yuma, Arizona.

The total length of the 500-kV transmission system within the United States would be approximately 25 miles; 20 miles from the

international border to Gila Substation and 5 miles from Gila Substation to North Gila Substation. To reduce the height, the double-circuit 500-kV transmission line may be constructed as two separate single-circuit transmission lines for a short distance near the U.S. Marine Corps Auxiliary Airfield No. 2 landing pattern.

The applicants proposed a route for the 500-kV transmission line that crosses the border immediately north of the proposed power generation facility and then turns northeast to the boundary of the Barry M. Goldwater Range. The route then proceeds north along the boundary of the Range and parallels the proposed Area Service Highway and Western's existing Sonora 69-kV transmission line.

Near the northwest corner of the Range, the proposed route heads north to the Yuma Mesa Irrigation District canal and levee, then turns generally northeastward, paralleling the canal, levee, levee road and Western's 69-kV line into Gila Substation. Leaving Gila Substation, the proposed route parallels the existing three transmission lines to the north, crossing the South Gila Valley, then turns northwest and into Arizona Public Service's North Gila Substation, still paralleling the existing transmission lines. DOE will evaluate opportunities to consolidate existing transmission lines with the proposed new line.



U.S. Department of Energy
Western Area Power Administration
P.O. Box 281213
Lakewood, CO 80228-8213

HECHOS SOBRE la propuesta del Proyecto San Luis Río Colorado EN EL CONDADO DE YUMA, ARIZONA

¿Qué es el proyecto de San Luis Río Colorado?

Generadora del Desierto S.A. de C.V. (GDD) está construyendo una planta generadora de electricidad de ciclo combinado a base de gas natural con una potencia nominal de 550 Megawatts (potencia máxima, 605 MW) localizada aproximadamente a 3 kilómetros al este de San Luis Río Colorado, en Sonora, México y una milla al sur de la frontera internacional.

La parte solicitante desea vender electricidad en México y en los Estados Unidos y está pidiendo al DOE (Departamento de Energía, por sus siglas en inglés) un permiso presidencial para construir dos líneas de transmisión de energía eléctrica de 500,000 voltios a través de la frontera de los Estados Unidos saliendo desde México. North Branch Resources, LLC (NBR, por sus siglas en inglés) socio en el proyecto propuesto está solicitando la interconexión con el sistema de transmisión de energía eléctrica de Western en el área de Yuma.

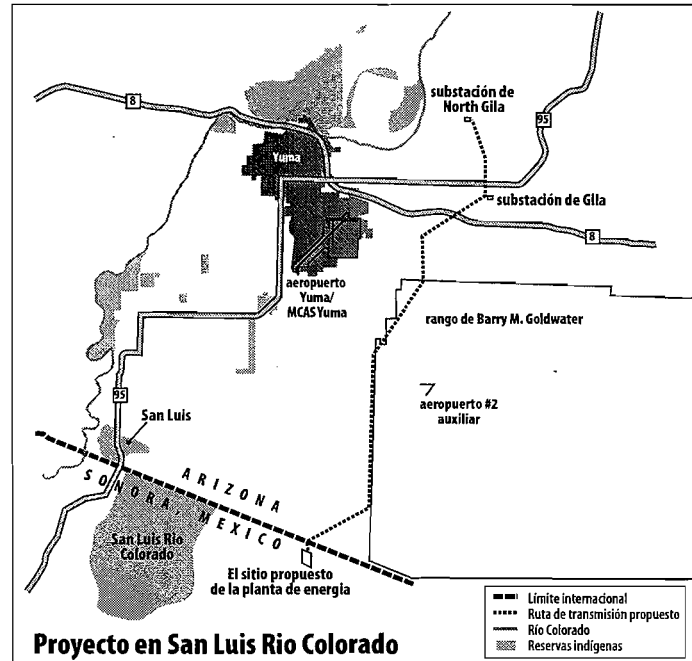
Las partes solicitantes son filiales en propiedad absoluta de North Branch Holding, LLC. GDD propone construir, ser propietaria, operar y mantener la planta generadora en México y la corta sección de la línea de transmisión localizada en México. Los solicitantes proponen que Western construya, sea propietaria, opere y mantenga los componentes de transmisión de energía eléctrica de doble circuito de 500 kilovoltios en los Estados Unidos, a expensas de los solicitantes.

Como respuesta a la solicitud de interconexión presentada a Western, la línea de transmisión se interconectaría con el sistema de transmisión de Western a través de una expansión de 500/161 kilovoltios en la subestación de Gila, localizada al este de Yuma. Bajo esta propuesta, Western podría construir, ser propietaria, operar y mantener la línea de transmisión de energía eléctrica de 500 kilovoltios entre un punto de cambio de propiedad cerca de la frontera internacional y la subestación Gila, la expansión de 500/161 kV en la subestación Gila y la línea de transmisión de 500 kV entre la subestación Gila y la subestación Gila Norte de la compañía Arizona Public Service Co. En ese caso, Western podría convertirse en co-solicitante para el permiso presidencial.

¿Por qué participan en este proyecto DOE y Western?

Solicitud de interconexión

Los decretos No. 888 y 888-A de la Comisión Federal Reguladora de Energía (FERC, por sus siglas en inglés) estipulan que todos los proveedores de servicios públicos que sean propietarios o controlen plantas de transmisión de energía eléctrica interestatal deben ofrecer servicios de transmisión no discriminatorios con acceso ilimitado. A través de estos Decretos, la FERC trata la necesidad de fomentar tasas menores de electricidad facilitando el desarrollo de mercados competitivos mayoristas de corriente eléctrica a través de la pre-



vención de prácticas discriminatorias indebidas al proporcionar los servicios de transmisión de energía eléctrica.

Para ser consistentes con estos decretos, Western publicó una tarifa final de servicio de transmisión con acceso ilimitado en el Registro Federal del 6 de Junio de 1998, y después presentó una enmienda a la tarifa con la FERC el 25 de enero de 2005, para adoptar las reglas de interconexión de generadores grandes que substancialmente concuerden con las publicadas por la FERC. La tarifa modificada de Western estipula que Western debe responder a la solicitud conforme la presente el solicitante. La sección 211 de la Ley Federal de Energía pide que los servicios de transmisión de energía eléctrica sean proporcionados haciendo una solicitud si se dispone de la capacidad de transmisión.

Para cumplir con las reglas de la FERC, Western se ha comprometido a ajustar una nueva capacidad de la transmisión construida por el solicitante. NBR solicitó una interconexión con el sistema de transmisión federal bajo la tarifa de Western. Western debe determinar si concede o deniega la interconexión poniendo en consideración los efectos que tenga el proyecto propuesto en los clientes actuales, el medio ambiente, la confiabilidad del sistema y cualquier otra modificación que necesite hacerse para adaptar la interconexión. Si se concede la interconexión solicitada y procede el proyecto propuesto, Western construiría, sería propietaria, operaría y mantendría cualquier modificación que requiera su propio sistema de transmisión dentro de los Estados Unidos, a expensas de NBR.

Ya que el proyecto propuesto integraría una importante fuente

nueva de generación eléctrica en el sistema de transmisión de la empresa Western, ésta ha determinado que se requerirá una Declaración de Impacto Ambiental (EIS, por sus siglas en inglés) bajo los Procedimientos de Implementación de la Ley Nacional de Política Ambiental (NEPA, por sus siglas en inglés) de DOE, CFR 10 en su parte 1021, Subparte D, Apéndice D, clase de acción D6.

Solicitud del permiso presidencial

GDD ha solicitado a DOE un permiso presidencial para construir dos líneas de transmisión de energía eléctrica de 500 kV a través de la frontera de los Estados Unidos desde México. El Decreto Ejecutivo 10485 según modificación por el decreto ejecutivo 12038, exige que se emita un permiso presidencial antes de construir, operar, mantener o conectar una planta de transmisión de energía eléctrica en la frontera internacional de los Estados Unidos. El decreto ejecutivo establece que se puede emitir un permiso presidencial después de encontrar que el proyecto propuesto es consistente con el interés del público y después de la concurrencia del Departamento de Estado y Defensa de los EE.UU.

Para que el DOE determine si hay consistencia con los intereses del público, toma en consideración los impactos ambientales del proyecto propuesto bajo la NEPA, determina el impacto del proyecto en la confiabilidad del suministro de energía (incluyendo si el proyecto propuesto afectaría en forma adversa la operación del sistema de suministro de corriente eléctrica en los Estados Unidos bajo condiciones normales y de contingencia), y otros factores que el DOE pueda considerar como relevantes al interés público. La emisión del permiso presidencial indica que no hay objeción federal al proyecto, pero no obliga a que el proyecto se complete.

¿Qué decisiones se tomarán?

Western usará la EIS junto con otros factores para determinar si aprueba su participación en la planta. DOE tomará una decisión separada para aprobar la solicitud del permiso presidencial. Western contactará a otras entidades federales, estatales, locales y tribales durante el periodo de evaluación preliminar pidiendo su opinión y participación en el proceso de la EIS.

¿Qué asuntos tratará la EIS?

En la EIS, DOE revisará los efectos en la seguridad y salud pública y los impactos ambientales dentro de los Estados Unidos de las instalaciones propuestas para la transmisión de energía y de la planta generadora en México. La EIS se preparará siguiendo los requisitos de los Reglamentos Nacionales de Implementación de la Ley de Política Ambiental del Consejo sobre la Calidad Ambiental (CFR 40, en sus partes 1500 a 1508) y los Procedimientos de Implementación de la NEPA de DOE (CFR 10 en su parte 1021).

Ya que el proyecto involucra acciones en un terreno aluvial, la EIS incluirá una evaluación del terreno y declaración de los hechos siguiendo los reglamentos de DOE para cumplir con la revisión ambiental de terrenos aluviales y pantanosos (CFR 10, parte 1022). Los gobiernos tribales y las dependencias federales, estatales y locales con experiencia o jurisdicción especial sobre el proyecto propuesto han sido invitados para actuar como dependencias cooperativas en la EIS.

Los aspectos potenciales ambientales dentro de los Estados Unidos que el DOE ha identificado tentativamente para analizar son:

- Impactos sobre especies de animales o plantas que están protegidas, amenazadas, en peligro o sensibles o sus habitats críticos (incluyendo el lagarto con cuernos de cola plana y el astrágalo de Peirson)
- Impactos en otros recursos biológicos
- Impactos en el uso del suelo, recreación y transporte (incluyendo la agricultura, desarrollo urbano y la carretera para servicios del área propuesta)
- Impactos en terrenos aluviales y pantanosos
- Impactos en recursos culturales o históricos y valores tribales.
- Impactos en la salud y seguridad humana (incluyendo la seguridad en la aviación militar, civil y agrícola).

- Impactos en los recursos del aire, suelo y agua (incluyendo la calidad del agua, el consumo y calidad de aguas freáticas)
- Impactos visuales
- Impactos socioeconómicos e impactos desproporcionalmente altos y adversos para las minorías y población de bajos ingresos.

Esta lista no pretende ser totalmente inclusiva ni implica ninguna predeterminación de impactos; DOE invita a las partes interesadas para que sugieran aspectos específicos dentro de estas categorías generales u otros puntos no incluidos anteriormente para que se consideren en la EIS. Ya que la EIS se preparará de conformidad con las leyes estadounidenses, sólo tratará los impactos que se acrecentarían en los Estados Unidos.

La NEPA no requiere un análisis de los impactos ambientales que ocurren en otra nación soberana que resultan de las acciones aprobadas por la misma. El decreto ejecutivo 12114 (enero 4, 1979) exige que las dependencias federales preparen un análisis de los impactos significativos derivados de una acción federal en ciertas circunstancias definidas y que exente a las agencias de la preparación del análisis en otras circunstancias. El decreto no pide que las agencias federales evalúen los impactos fuera de los Estados Unidos cuando otro país está participando con los Estados Unidos o de alguna forma está involucrado en la acción.

Aquí, el gobierno mexicano ha estado involucrado en la evaluación de los impactos ambientales asociados con la planta generadora de electricidad en México y ha emitido permisos que autorizan la construcción y operación de la planta e instalaciones auxiliares, incluyendo el uso del agua. En la EIS preliminar se incluirán las generalidades del permiso para una planta generadora de electricidad y el análisis de los impactos ambientales asociados que fueron realizados por el gobierno de México.

¿Qué actividades del proyecto están planeadas para realizarse fuera de los Estados Unidos?

En México, GGD planea construir y operar una nueva planta generadora de electricidad de ciclo combinado a base de gas natural con una potencia nominal de 550 Megawatts (potencia máxima, 605 MW) localizada aproximadamente a 3 millas al este de San Luis Río Colorado, en Sonora, México y una milla al sur de la frontera internacional.

Considerando que esta planta no está sujeta a los requisitos de regulación de los Estados Unidos, DOE evaluará los impactos en los Estados Unidos derivados de su operación como parte de su análisis de impacto ambiental. GDD planea construir la planta generadora de electricidad para cumplir con los estándares ambientales que se aplican a los Estados Unidos además de los correspondientes al Instituto Nacional de Ecología de México.

La planta generadora de electricidad que se planea estaría equipada con tecnología avanzada en el control de emisiones, incluyendo la tecnología de combustión baja en óxidos de nitrógeno (NOx) y un sistema de reducción catalítico selectivo para estos óxidos y oxidantes catalíticos para el control de las emisiones de monóxido de carbono. La fuente primaria de agua de la planta sería agua tratada que sale de la planta de tratamiento de aguas de San Luis Río Colorado, y GDD construiría el sistema de tuberías que conectan las dos plantas. Se construiría un gasoducto para gas natural de aproximadamente seis millas de longitud desde la planta generadora de energía eléctrica hasta la línea principal de gas existente.

GDD planea vender energía eléctrica en horas de menor demanda en México a la asociación de maquiladoras (plantas de fabricación o ensamble en la zona del Tratado de Libre Comercio de Norteamérica) de San Luis Río Colorado y también a la Comisión Federal de Electricidad, empresa mexicana que provee de servicio eléctrico al país. GDD construiría, sería propietaria, operaría y mantendría una sección de la línea de transmisión de energía eléctrica en México hasta un punto por determinar (punto de cambio de propiedad).

¿Qué necesita Western de usted?

Western necesita miembros del público, tribus y dependencias federales, estatales, locales y tribales para identificar aspectos e inquietudes que nos ayuden a refinar las alternativas y puntos preliminares y eliminar a partir de un estudio detallado, aquellas alternativas y aspectos ambientales que no son factibles o pertinentes. Todos los comentarios que recibamos serán tomados en cuenta y usados para diseñar el proceso de la EIS.

Ya que el proyecto involucra acciones en terreno aluvial, la EIS tratará los impactos en terrenos aluviales y pantanosos según los reglamentos de DOE para el cumplimiento con la revisión ambiental para terrenos aluviales y pantanosos.

¿Puedo hacer comentarios si no puedo asistir a la reunión de evaluación preliminar?

Usted podrá enviarnos una carta, indicando sus inquietudes, asuntos o preguntas, o bien llamando al contacto de Western indicado abajo. Si usted no especifica lo contrario, conservaremos su

nombre en la lista de direcciones del proyecto para futuros anuncios relacionados con la EIS.

Western necesita su opinión para mediados de marzo para ayudarnos a definir el alcance de la EIS. También puede darnos sus comentarios sobre el proyecto propuesto durante el proceso de la EIS. Envíe sus comentarios a: Mr. John Holt, Environmental Manager, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, fax: 602-352-2630, e-mail: hotl@wapa.gov.

¿Cuándo y dónde se realizarán las reuniones de evaluación preliminar?

Se realizarán en el Centro Cívico y de Convenciones de Yuma, 1440 West Desert Hills Drive en Yuma, AZ el 28 de febrero y en la escuela San Luis High School, 1250 North 8th Avenue en San Luis, AZ el 1° de marzo de 2006. Las instalaciones tienen acceso para sillas de ruedas y habrá un representante que habla español.

La reunión será el:

- 28 de febrero de 9 a.m. a 4 p.m. y de 6 a 9 p.m. en Yuma
- 1° de marzo de 9 a.m. a 4 p.m. y de 6 a 9 p.m. en San Luis

Las reuniones de evaluación previa se estructurarán como reuniones informativas informales dando a las partes interesadas la oportunidad de ver el proyecto propuesto y la información del proceso de la EIS, así como hacer preguntas y comentarios. DOE y los representantes de las dependencias cooperativas podrán contestar las preguntas de los asistentes proporcionándoles también información adicional.

¿Qué otras alternativas se considerarán?

DOE considerará cualquier alternativa razonable adicional que resulte de los comentarios que reciba en respuesta al proceso de evaluación preliminar. Para que las alternativas sean consideradas razonables tendrán que cumplir con el propósito y necesidades de Western y de los solicitantes, y ser técnicamente factibles y económicamente viables. DOE también considerará como alternativas razonables aquellas que puedan identificarse posteriormente en el proceso de la EIS.

La EIS también considerará los impactos ambientales de la alternativa de "No Acción". Bajo la alternativa de No Acción, la EIS analizará los impactos asociados con la desaprobación del acuerdo de interconexión y la no emisión del permiso presidencial.

¿Habrá otras oportunidades para hacer comentarios?

DOE anticipa que el proceso de la EIS tomará aproximadamente de 14 a 16 meses e incluirá la información del público y las reuniones de evaluación preliminar; la consulta y participación con las dependencias federales, estatales y locales adecuadas, y los gobiernos tribales; revisiones y audiencias públicas sobre la EIS preliminar que se publique; la publicación de la EIS final y de un registro de la decisión.

Después de analizar las inquietudes del público y los posibles impactos del proyecto propuesto, Western en cooperación con las dependencias, emitirá una EIS preliminar. Tendrá 45 días para revisar el informe y darnos sus comentarios. Western espera que la EIS preliminar esté disponible para su revisión en el otoño de 2006.

Western ofrecerá una audiencia pública para recibir los comentarios sobre la EIS preliminar durante el periodo de revisión y posteriormente revisará los comentarios antes de preparar la EIS final. Tendrá otros 30 días para revisar la EIS final. Western espera emitir la EIS final a principios de 2007. Posteriormente Western y el DOE harán decisiones individuales para avanzar con las acciones relacionadas con el proyecto propuesto. Las decisiones de las dependencias sobre la planta propuesta se esperan inmediatamente después. En caso de aprobarse, la construcción se ajustará a las decisiones de las dependencias.

¿Cómo puedo tener más información?

Llame o escriba a Mark Wieringa, NEPA Document Manager, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228-8213, teléfono: 720-962-7448, fax: 720-962-7263, e-mail: wieringa@wapa.gov.

Para información sobre el proyecto en español, contacte a Enoe Marcum, Environmental Specialist, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box, 6457, Phoenix, AZ 85005, teléfono: 602-605-2422, fax: 602-605-2414, e-mail: marcum@wapa.gov.

Para información sobre el proceso para obtener el permiso presidencial, contacte a la Sra. Ellen Russell, Office of Electricity Delivery and Energy Reliability (OE-20), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, D.C. 20585-0350, teléfono: 202-586-9624, fax: 202-586-5860, e-mail: ellen.russell@hq.doe.gov.

¿Qué acciones y alternativas propuestas se están considerando?

Western está evaluando los impactos ambientales de un proyecto que propone interconectarse con su sistema de transmisión de energía eléctrica en el área de Yuma, Arizona. Western recibió una solicitud de Generadora del Desierto S. A. de C.V. y de North Branch Resources, LLC, quienes planean construir una planta generadora de energía eléctrica a través de la frontera internacional en Sonora, México que se interconectaría con la subestación Gila de Western y con la subestación Gila Norte de Arizona Public Service.

Western considera las instalaciones de transmisión de energía eléctrica de 500 kV al sur de la subestación Gila, el punto propuesto de interconexión, como las instalaciones de interconexión para uso único de los solicitantes, mientras que el tramo entre la subestación Gila y la subestación Gila Norte se considera una mejora de la red que beneficia al sistema integral de transmisión.

Las instalaciones de interconexión consistirán de las instalaciones de interconexión del cliente, propiedad de GDD, y las instalaciones de interconexión del proveedor, propiedad de Western. GDD ha recibido la autorización de la Comisión Reguladora de Energía, comisión reguladora de energía en México, para exportar energía eléctrica a los Estados Unidos y propone transmitirla durante las horas de máxima demanda a los Estados Unidos en la vecindad de Yuma, Arizona.

La longitud total del sistema de transmisión de energía eléctrica de 500 kV dentro de los Estados Unidos sería aproximada-

mente de 25 millas; 20 millas a partir de la frontera internacional hasta la subestación Gila y 5 millas de la subestación Gila hasta la subestación Gila Norte. Para reducir la altura, la línea de transmisión de doble circuito de 500 kV podrá construirse como dos líneas de transmisión separadas de circuito único para una distancia corta cerca del patrón de aterrizaje de la Infantería de Marina de los Estados Unidos, Aeródromo Auxiliar No. 2.

Los solicitantes propusieron una ruta para la línea de transmisión de 500 kV que cruce la frontera inmediatamente al norte de la planta generadora de electricidad propuesta y luego gire al noreste hacia los límites del Campo Barry M Goldwater. La ruta luego prosigue al norte a lo largo de los límites del campo y corre paralela a la carretera para servicios del área propuesta y a la línea de transmisión existente de 69 kV de Western en Sonora.

Cerca de la esquina noroeste del campo, la ruta propuesta sigue al norte hacia el canal y dique del Distrito de Irrigación de la Meseta de Yuma y luego gira generalmente hacia el noreste, paralelo al canal, al dique, al camino del dique y a la línea de 69 kV de Western llegando a la subestación Gila. Al salir de la subestación Gila, la ruta propuesta va paralela a las tres líneas de transmisión existentes hacia el norte, cruzando el valle sur de Gila, luego gira al noroeste y entra a la subestación Gila Norte de Arizona Public Service, todavía paralela a las líneas de transmisión existentes. DOE evaluará las oportunidades para consolidar las líneas de transmisión existentes con la nueva línea propuesta.



Buckle up tweens in back, auto safety advocates urge

► Fatality rate for 8- to 12-year-olds more than one a day

ASSOCIATED PRESS

WASHINGTON — With 8- to 12-year-olds dying at a rate of more than one a day in automobile crashes, safety groups are pushing for more youngsters to remain belted in the back seat.

In the past, safety experts have focused their attention on getting younger children into child safety seats and booster seats to keep them secure and protect them in crashes.

But a report released Tuesday by the Automotive Coalition for Traffic Safety raises questions about how frequently "tweens" — children between ages 8 and 12 — are wearing their seat belts and whether they're sitting snugly in the back seat.

Conducting pilot projects in Dallas and Joplin, Mo., the non-profit group, whose members include several automakers, found that about one-third of the children surveyed — and half of the 12-year-olds — sat in the front seat.

In Joplin, about 63 percent of the children said they always wear their seat belts while about 53 percent of the Dallas children said they were always belted.

Safety experts said the findings were troubling because the belt use falls well below the national use rate of 82 percent. It also highlights an underlying problem: In 2004, 417 children between the ages of 8 and 12 died in traffic crashes, an average of more than one per day.

"These findings clearly show that too many children age 12 and under are riding at risk in cars because they are not properly restrained in rear seats," said Mark Rosenker, acting chairman of the National Transportation Safety Board.

The report was based on surveys completed by more than 400 children in both locations and had a margin of error of 5 percentage points.

The government recommends that parents have any infant up to 20 pounds ride in a rear-facing

child seat and any toddler weighing 20 to 40 pounds ride in a child seat with a harness. The government says a child heavier than 40 pounds but not yet 4 feet 9 inches tall should be in a booster seat.

All children are advised to ride in the back seat until age 13. The government and several safety groups are discussing ways of improving child passenger safety this week as part of an annual campaign.

The campaign comes a week after pop star Britney Spears was photographed driving with her 4-month-old son seated on her lap.

Transportation Secretary Norman Y. Mineta said Monday that "Spears' behavior was irresponsible."

The auto coalition said its Missouri survey found a strong parental influence — more than 9 in 10 children of parents who always wear seat belts follow their parents' example. But among the children of parents who do not always wear seat belts, only about 6 in 10 always buckle up.

On the Net: Tween Safety: <http://www.tweensafety.org/>



ASSOCIATED PRESS
BRATZ MP3 LIPTUNES (left) and Cloe's Pet are displayed at the MGA Entertainment showroom Friday during the American International Toy Fair in New York. The pet toy hooks up to any MP3 player including the iPod.

Toy makers hitch stars to iPod craze

ASSOCIATED PRESS

NEW YORK — After bemoaning the emergence of the iPod as children's latest must-have toy, toy makers are now looking at the digital musical player as their own marketing strategy.

After the success last year of Zizzle Inc.'s iZ and Hasbro Inc.'s iDog, both of which can be hooked up to Apple Computer Inc.'s iPod, competitors are coming up with their own iPod-friendly products, aimed at pre-teens. The toys, being shown at this week's American International Toy Fair trade expo, range from electronic drumsticks and other musical instruments to chairs and electronic playmates that act as speakers.

For even younger children, Baby Einstein Co. has a rocking chair that connects to an iPod so parents can sing along while the child rocks. And Emerson Radio Corp. has a SpongeBob SquarePants speaker system that plugs into an iPod, part of its line of electronics sold under the Nickelodeon brand.

"The iPod is the No. 1 toy. My view is why fight them? Why not join them?" said Isaac Larian, chief executive of MGA Entertainment Inc., which has a chair under its popular Bratz brand that serves as an iPod speaker.

Apple has sold more than 42 million iPods, 30 million in 2005, making the gadget a huge marketing opportunity for companies in a range of industries. Merchandise including iPod clothing, leather cases and speakers were part of an estimated \$850 million cottage industry last year, according to market researchers.



ASSOCIATED PRESS
A BALD EAGLE is shown in Homer, Alaska Feb. 5, 2005. Seven years after the government said the raptor is no longer threatened with extinction, officials have come up with a plan for getting it removed from the endangered species list.

Bald eagle poised to take flight from endangered list

ASSOCIATED PRESS

WASHINGTON — The American bald eagle, after battling back from the threat of extinction because of habitat loss and DDT, took another step Monday toward coming off the endangered species list.

The Interior Department's Fish and Wildlife Service issued draft voluntary guidelines spelling out how landowners, land managers and others should protect the bird once it no longer is safeguarded by the 1973 law.

It also proposed prohibitions on "disturbing" the bald eagle, which could include anything that would disrupt its breeding, feeding or sheltering or cause injury, death or nest abandonment.

The Clinton administration proposed removing the bald eagle from the endangered species list in 1999. But the delisting has taken far longer than the typical year, partly because updated counts are required from each of the states, and some of those have their own rules that add to red tape.

Officials said Monday's action could lead the bald eagle coming off the endangered species within the next year or so.

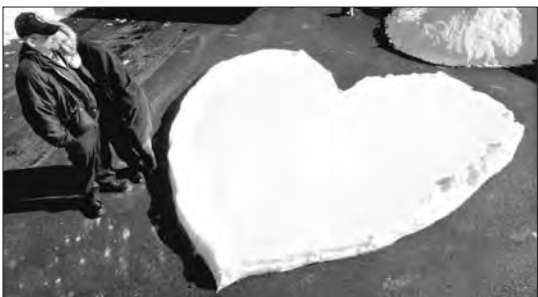
"Should the eagle be delisted, we expect that the public will notice little change in how eagles are managed and protected," said H. Dale Hall, the Fish and Wildlife Service's director.

He said at least 7,066 known nesting pairs now exist in the contiguous United States. The bald eagle's territory stretches over much of the North American continent.

If and when the bald eagle is removed entirely from the endangered list, two other laws will continue to protect it: the 1918 Migratory Bird Treaty Act and the 1940 Bald Eagle Protection Act, later revised to include the golden eagle.

David Smith, the Interior Department's deputy assistant secretary for fish and wildlife, said the agency wouldn't hesitate to act "if at any time in the future it becomes evident that the eagle needs relaxing protections."

YOUR COLD, COLD HEART



ASSOCIATED PRESS
Gindy Vands (right) gives her husband Randy a hug in the driveway of their Shrewsbury, Pa., home Monday. While showing the drive Sunday, Randy said he came up with the idea to make his wife smile for Valentine's Day. Gindy said, "it's better than candy and jewelry because it's from the heart."

Google share price slides as investor sentiment sours on sweetheart stock

ASSOCIATED PRESS

SAN FRANCISCO — Google Inc.'s stock price dropped by more than 4 percent Monday, accelerating a recent shift in sentiment that has caused once-ebullient investors to become more circumspect about the online search engine leader.

Barron's cast the latest fall on Google with an article outlining several risks that threaten to squeeze the company's profit

margins and cut its market value in half.

The gloomy scenario further dampened investors' enthusiasm for Google, whose market value has plunged by 27 percent during the past month to wipe out nearly \$40 billion in shareholder wealth. Google's shares fell \$16.91, or 4.7 percent, to close at \$345.70 on the Nasdaq Stock Market. The shares peaked at \$475.11 on Jan. 11.

Actor died from enlarged heart, medicine mix

ASSOCIATED PRESS

LOS ANGELES — Autopsy and toxicology test results released Monday show that actor Chris Penn died accidentally from an enlarged heart and the effects of a mix of multiple medications.

"There is absolutely no indication that this is anything but an accident," chief coroner investigator Craig Harvey said.

Penn, 40, the younger brother of Sean Penn, was found dead in his Santa Monica condominium on Jan. 24.

Penn appeared in such films as "Reservoir Dogs," "Rush Hour," "Starsky & Hutch" and "Corky Romano."

The Sun

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We seek additional issues and concerns from the public to be considered in the EIS.

Western will host informal public meetings, February 28 and March 1, to help define the scope of the San Luis Rio Colorado Project EIS. The meeting locations are handicapped accessible and an interpreter to assist Spanish-speaking persons will be available.

Join us on Feb 28 in Yuma or March 1 in San Luis to learn more about this proposed project and to share your ideas:
9 a.m. to 4 p.m. or 6 to 9 p.m.
Yuma Civic and Convention Center San Luis High School
1440 West Desert Hills Drive 1250 North 8th Ave.
February 28 March 1



Need more info?
Contact Mr. Mark Wieringa, NEPA Document Manager,
Western Area Power Administration,
P.O. Box 281213, Lakewood, CO 80228-8213,
phone: 720-962-7448, fax: 720-962-7263,
e-mail: wieringa@wapa.gov.

For project materials in Spanish, contact Mr. Ernie Marroon, Environmental Specialist, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, telephone: (602) 405-2422, fax: (602) 605-2414, e-mail: mmarroon@wapa.gov.

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LOCALES

Apoya Concilio de Yuma plan para puerto en Andrade



MICHELLE VOLKMANN
THE SUN

No obstante una petición hecha por uno de los concejales de no aprobarla, el Concilio de la Ciudad de Yuma mostró su apoyo para la construcción de un nuevo puerto de entrada entre Baja California, México y Arizona. Con una votación de 4 a favor por 2 en contra, el Concilio de Yuma aprobó la enmienda a una resolución de respaldo estableciendo que el concilio apoyó la Alternativa 5 trazada en el plano de la Administración Federal de Servicios Generales en el Informe de Impacto Ambiental. Este estudio delineó cinco opciones para mejoramiento al Puerto de Entrada a Estados Unidos de Andrade, California. Una de las opciones, referida como Alternativa 5 (Alternativa 5), es un puente a lo largo del Río Colorado desde el sur de los Algodones, Baja California a Yuma. Un

Alternativa 5, es un puente a lo largo del Río Colorado desde el sur de los Algodones, Baja California a Yuma. Un camino de enlace alineado con la Calle 8 sería utilizado por vehículos privados y tráfico comercial, pero el actual puerto de entrada seguiría siendo utilizado para cruce peatonal.

camino de enlace alineado con la Calle 8 (8th Street) sería utilizado por vehículos privados y tráfico comercial. El actual puerto de entrada seguiría siendo utilizado para cruce peatonal. Se adquirirán al menos 50 acres de terreno para este nuevo puerto. Las otras cuatro opciones tratan sobre mejoras al actual puerto de entrada que están en terrenos de la Tribu Quechan. Justo antes de la votación, el concejal Gerry Giss le solicitó al alcalde Larry Nelson que le

permitiera llevar a cabo una enmienda a la enmienda que sustituya el apoyo a la quinta opción por una declaración de apoyo general para mejoras al Puerto de Entrada a Estados Unidos en Andrade, California. Nelson declinó su petición. "Estoy tratando todo lo que puedo", externó Giss. Durante las pláticas llevadas a cabo a principios de esta semana, Giss expresó su preocupación sobre el apoyo del concilio a la Alternativa 5. Dijo que crearía una "cicatriz" con otras entidades

del Condado de Yuma. "Crearé una sensación malsana con nuestros aliados", dijo en la sesión del miércoles. La ciudad de Yuma es la primera entidad en apoyar la Alternativa 5. Se cree que el Consejo de Supervisores del Condado de Yuma está en contra. Esperan discutir este asunto en la próxima junta. El concejal Ross Hieb dijo que si se construye, el tráfico creado por la ubicación del puerto pondrá una carga en la infraestructura de la ciudad. Uno de los oradores, James Brown, expresó que la Alternativa 5 es la opción más costosa. "Va a arrojarnos (el tráfico) justo a la ciudad de Yuma, a un área que no puede sostenerla", dijo. "Déjenlo donde está. Se ha hecho todo esto solo para manejar un problema de cuatro meses de duración". La fecha límite para entregar sus opiniones sobre el plano es el 26 de febrero.

Inicia preparación de impuestos gratuita

MARIA G. ESPARZA
BAJO EL SOL

San Luis, Arizona — A partir de la semana pasada un grupo de voluntarios del Servicio de Ingresos Internos (IRS), dio inicio al programa de preparación de impuestos gratuito, dirigido a los residentes de bajos ingresos del sur del Condado. María Ponce, coordinadora de voluntarios, señaló que alrededor de 30 personas fueron capacitadas para brindar el servicio en el Centro de la Comunidad Fernando Padilla, en un

horario de nueve de la mañana a 12 del día, y exclusivamente durante los sábados. El último día, dijo, para elaborar sin costo las declaraciones será el 15 de abril, con lo cual los ciudadanos podrán ahorrarse un promedio de 25 dólares en el caso del proceso postal, y entre 60 y 80 dólares cuando se trata del electrónico. Las declaraciones 1040-EZ, explicó, son las más sencillas y corresponden a las personas solteras o casadas, sin dependientes y con un ingreso único; en tanto la

1040-A, toca a los solteros o casados con dependientes. La más compleja de las declaraciones es la 1040, pues requiere presentar deducciones detalladas, por lo cual los voluntarios la podrán realizar en casos donde la información no sea excesiva, aclaró. Este año, las familias podrían recibir un poco más de dinero, pues los reembolsos y créditos aumentan conforme la inflación, al igual que ocurre con las deducciones, apuntó. El llamado reembolso rápido, anotó, es realmente un

préstamo que se debe cubrir con intereses muy fuertes al preparador de los impuestos, "les dicen que es un reembolso de 24 horas, pero ese es el tiempo que se tarda el IRS en recibir las declaraciones electrónicas". Añadió que en Yuma el servicio se llevará a cabo a través del organismo no lucrativo Goodwill Industry, cuyo número telefónico para mayor información es el 783-4190. En San Luis los interesados pueden comunicarse al 627-3203 y 627-9660.

Los más buscados del Condado

Si usted tiene información que pudiera llevar al arresto de alguna de estas personas, favor de llamar a Beto Bórquez, Oficial de Libertad Condicional al teléfono **329-2210**, ext. 2342. Si usted conoce su paradero inmediato, llame a las autoridades locales o marque el 9-1-1. Por ningún motivo trate de arrestarlos o detenerlos usted mismo.



Oriene Pérez
Hispana, nacida el 9-1-77. Estatura 5'5", peso 126 libras. Cabello color castaño, ojos color avellana. Se le conoce también con el Alias: Gwendolyn Pérez/Wendy Pérez. La violación de su libertad condicional es de condena original por Daño Criminal, Felonia de clase 6.



Robin Holmes
Nativoamericano, nacida el 1-7-76. Estatura 5'5", peso 220 libras. Cabello y ojos castaños. Alias: Robin Charlene Holmes. Tatuajes: pecho - "Smile Now Cry Later" con una rosa/brazo derecho - "Holmes". La violación de su libertad condicional es de condena original por No Cumplir con la Devolución de una Propiedad en Renta, una felonia de clase 6.



Rigoberto Ibarra
Hispano, nacido el 6-14-65, mide 5'6", peso 150 libras. Cabello y ojos castaños. Conocido también con el Alias: Rigoberto Nila Ibarra/Félix Nila Ibarra/Rigoberto Gutiérrez. Las violaciones de su libertad condicional son por las siguientes razones: Uso Fraudulento de Tarjeta de Crédito, una felonia de clase 5 y Tomar la Identidad de Otra Persona, Felonia de clase 4.



Tomm Cunningham
Afroamericano, nacido el 5-17-65. Estatura 5'5", peso 180 libras. Cabello negro, ojos castaños. Alias: Alan y C. La violación de su libertad condicional son por las condenas originales de Indecencia Pública con un Menor (Dos Cargos), ambas felonias de clase 5.

Culpan a infantes de Marina por incidente en México

JEFFREY GAUTREAUX
BLAKE SCHMIDT
THE SUN

En México se han presentado cargos por intento de homicidio en contra de infantes de Marina de Yuma quienes presuntamente arrollaron y arrastraron a un hombre con su vehículo en la ciudad de Mexicali, en un hecho ocurrido en enero. Javier López, abogado de la víctima, cuyo nombre es Charles Wong de El Centro, expresó que presentó cargos en la oficina de la Procuraduría General en Mexicali. Dicha oficina confirmó que los cargos fueron presentados

esta semana. El teniente primero Kevin Schultz, vocero de MCAS, expresó que no tenía conocimiento de los cargos presentados en México. "No tengo información al respecto", dijo. López comentó que llevará personalmente la notificación legal a la base de la Infantería de Marina en Yuma en esta semana solicitando que los cuatro sospechosos se presenten en Mexicali y den su declaración como parte de la investigación criminal. "Esto se llevará a cabo de manera amistosa", dijo López. "Les haré saber que pueden ir de manera voluntaria, o que lo podemos hacer por medios legales. Si no se presentan,

creo que tendremos que iniciar un proceso de extradición". Los cuatro infantes de Marina, los cabos interinos Manuel Mercedes, Alexander Terney y William Luna así como el cabo Rufus McCall, todos alrededor de los 20 años y estacionados en MCAS, según el detective de la policía de Calexico Gonzalo Gerardo. Los cuatro visitaban los bares de la ciudad de Mexicali el 28 de enero y fue en las primeras horas de la mañana del 29 de enero cuando presuntamente ocurrió el accidente, dijo Gerardo. De acuerdo con Gerardo, Mercedes, quien conducía el

presuntamente atropelló a Wong con el vehículo, arrollándolo por el suelo. Luego condujo de regreso a Estados Unidos después del incidente. En las dos semanas posteriores al incidente, Wong ha pasado por cinco diferentes cirugías por sus dañados tendón de Aquiles, costilla rota, y piel que fue destilada de su espalda mientras era arrastrado por el vehículo, expresó su padre. Schultz externó que los cuatro infantes de Marina continúan con su condición regular de trabajo, y que la División de Investigación Criminal de la Infantería de Marina continúa revisando el caso.

Limpieza de la Colonia Campaña 2006

La Ciudad de Yuma les avisa a que saquen su basura para la Limpieza de la Colonia en marcha hasta marzo. El programa de 2 meses de duración iniciará el 30 de enero al norte de Yuma. Al final encontrará el horario completo. Limpieza de la Colonia está disponible para todos los residentes de la ciudad y está pagado como parte del Proyecto de Ley para Servicios de la Ciudad.

Además de la basura regular, los residentes podrán deschar artículos grandes como muebles, electrodomésticos, colchones, alfombras y hasta más de cinco llantas sin el tin por residencia. Favor de apilarlos por separado y colocarlos al borde de la banqueta para su recolección. Si desea más información sobre lugares de recolección, puede llamar al (928) 373-4500.

- AREA 1 — Recolección del 30 de enero al 2 de febrero Desde Colorado Street hasta 8th Street entre Magnolia Avenue y al oeste de los límites de la ciudad.
- AREA 2 — Recolección del 6 al 9 de febrero Desde 8th Street hasta el norte de los límites de la Ciudad entre Magnolia Avenue y Avenue A.
- AREA 3 — Recolección del 13 al 16 de febrero Desde 8th Street hasta al

- norte de los límites de la Ciudad entre Avenue A y al este de los límites de la Ciudad.
- AREA 4 — Recolección del 20 al 23 de febrero De Avenue A hasta el oeste de los límites de la Ciudad entre 8th Street y 16th Street.
- AREA 5 — Recolección del 27 de febrero al 3 de marzo Avenue A hasta el este de los límites de la Ciudad entre 8th Street y 16th Street y de la 16th hasta la 24 Street entre East Main Canal hasta 4th Avenue.
- AREA 6 — Recolección del 6 al 9 de marzo Desde East Main Canal hasta el oeste de los límites de la Ciudad entre 16th Street y 24th Street.
- AREA 7 — Recolección del 13 al 16 de marzo De la 24th Street hasta el sur de los límites de la Ciudad entre 4th Avenue y al oeste de los límites de la ciudad y todas las residencias al sur de 32nd Street hasta el sur de los límites de la Ciudad.
- AREA 8 — Recolección del 20 al 23 de marzo Desde 4th Avenue hasta Pacific Avenue y 24th Street hasta 32nd Street.
- AREA 9 — Recolección del 27 al 30 de marzo Desde Pacific Avenue hasta 36th Street de los límites de la Ciudad entre 16th Street y 32nd Street y al norte de la Interestatal 8 entre las avenidas 32 y 10th.
- AREA 10 — Recolección del 13 al 16 de febrero Desde 8th Street hasta al

¡Necesitamos sus ideas!

Necesitamos recibir comentarios que nos ayuden a definir los problemas y las alternativas en la evaluación de los impactos ambientales de un proyecto preparatorio Western Area Power Administration recibió una solicitud de Generador del Deserto S.A. de C.V. y North Branch Resources, LLC, para implementar un nuevo sistema de transmisión. Planean cambiar una zona justa del sitio de la frontera internacional en Sonora, México. Los proponentes del proyecto solicitan a Western la construcción de líneas de transmisión para conectar la única propuesta a las subestaciones de Gila y North Gila, en cercanías de Yuma, Arizona. Si se concede la aprobación, los componentes de las líneas de transmisión se interconectarán a Western, que será la propietaria y estará a cargo de la operación y el mantenimiento. Los proponentes del proyecto también han solicitado un permiso de la presidencia ante el Departamento de Energía, con el fin de construir, operar, mantener y cerrar las instalaciones de transmisión eléctrica a la frontera internacional con los Estados Unidos. Como parte de sus procesos de toma de decisiones, Western y la Oficina de Seminario de Eficiencia y Usabilidad de la Energía del Departamento de Energía prepararon una declaración del impacto ambiental a fin de abordar las preocupaciones del proyecto propuestas en los Estados Unidos. Los funcionarios de Western y de la Oficina de Seminario de Eficiencia y Usabilidad de la Energía identificaron una lista preliminar de cuestiones que se deberán abordar en la declaración. Las cuales comprenden representaciones en:

- Pájaros protegidos, anidados, en peligro de extinción o sensibles de anidación o plantas o aves habitad críticas.
- Recursos del aire, del suelo y el agua.
- Usos agrícolas y mineros.
- Recursos culturales o históricos.
- Poblaciones de minorías y de bajos ingresos.

Deseariamos que el público nos comparta otros problemas e inquietudes que pueda tener a fin de incluirlos en la declaración de impacto ambiental. El 28 de febrero, en primer lugar, entre las 9 y 10 de mañana, Western celebrará reuniones públicas informales en un intento por definir el alcance de la declaración de impacto ambiental para el Proyecto en San Luis Río Colorado. Las instalaciones del lugar donde se celebrará la reunión permitirán el acceso de personas discapacitadas y se contará con un intérprete para ayudar a las personas hispanohablantes.

Participe el 28 de febrero o 9 de marzo en Yuma o el primero de marzo o 10 de marzo en San Luis para saber más sobre este proyecto propuesto y compartir sus ideas:

- Yuma Civic and Convention Center 1440 West Dover Hills Drive 28 de febrero, de 9 hrs a 10 hrs, o de 11 hrs a 21 hrs 9 de marzo, de 11 hrs a 16 hrs, o de 17 hrs a 20 hrs.
- San Luis High School 1250 North St. 9 de marzo, de 9 hrs a 10 hrs, o de 11 hrs a 21 hrs.
- Fernando Padilla Community Center 400 East Juan Sanchez Blvd. 10 de marzo, de 11 hrs a 16 hrs, o de 17 hrs a 20 hrs.



Proyecto en San Luis Río Colorado

¿Necesita más información?

Comuníquese con el Sr. Mark Wieringa, Gerente de documentos de NEPA, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80028-8213, teléfono: 720-962-7448, fax: 720-962-7263, correo electrónico: wieringa@wapa.gov.

Si necesita materiales sobre el proyecto en español, comuníquese con la Sra. Ence Macrum, Especialista ambiental, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, teléfono: (602) 605-2422, fax: (602) 605-2414, correo electrónico: macrum@wapa.gov.



Good grooming important in varying degrees

Did you take a bath today? Grooming is another one of those things that you don't notice your own culture's rules until someone else is breaking them.



CINDY & LALO VARGAS

¡VIVA! ¡ESPAÑOL!

It does help to be in an incredibly wealthy country that can provide not only one choice of deodorant and soap, but myriads.

In the poorer Spanish-speaking countries, much of the population cannot afford deodorant and accompanying beauty products.

Even further away from American cultural rules are the Ayore Indians in South America who worship water and do not bathe at all.

Idioms

Se salvó por un pelo. **Seh sal-VOH por on PEH-loe** It literally means "he or she saved himself/herself by a hair." The equivalent expression in English is, "He or she had a close shave."

Bridging the cultures

Q: I have seen some Hispanic women and they obviously did not shave their legs. Is that common?
A: Yes. Shaving or not shaving is dictated by money and knowledge. In many small villages, there is no money for razors. In the large cities and towns, you are more likely to see shaved legs. The wealthier women shave. The women from the more native tribes do not like to shave because of very little hair growth.

The reality of shaving has been around since B.C. but you might be surprised that here in the U.S. shaving underarms and legs started around 1915 when a clever advertiser convinced North American women that underarm hair is unhygienic and unfeminine.

It worked. Women and men were absolutely convinced of it thanks to an excellent marketing strategy. It sold a lot of razors. And still does.

Send your questions or comments to Cindy and Lalo Vargas at vargas@translators.com.



MATTHEW AND SARA MARSHALL

Young-Marshall

Sara Elizabeth Young and Matthew Marshall exchanged wedding vows Aug. 6, 2005, at the Church of the Bible Covenant.

The bride is the daughter of Michael Young and of Jennifer and Davis Welch, all of Yuma. The groom is the son of William and Sherilyn Marshall of Hobe Sound, Fla.

Given in marriage by her father, the bride wore a full-length gown of peau de soie with a fitted, short-sleeve bodice and a shoulder-length illusion tulle veil. A chapel train fell from the natural back waistline trimmed with lace. The gown was first worn by the bride's grandmother, Anita Young, in June 1965.

The bridal bouquet was of light-pink and dark-pink peonies with light-pink and white roses.

Maid of honor was Alicia Kuzmar, with bridesmaids Morgan Gullickson, Ashley Marshall, groom's sister, and junior

bridesmaid Emily Young, bride's sister. They wore Jessica McClintock light-pink, teal-length, A-line, chiffon dresses with a pink satin bow at the waistline, and each carried a pomander ball of white and light-pink peonies.

Best man was Kirk Marshall, groom's brother. Groomsman were John-Paul Churchill, Aaron Gardner and Christopher Connor, bride's cousin.

Serving as flower girls were Jessica Welch, bride's sister, and CarolAnne Reimer, bride's cousin. Bible bearer was Nicolas Welch, bride's brother.

Clergyman was the Rev. Philip Knisley. Scripture reading was by John-Paul Churchill and Emily Young. Wedding music was provided by pianist Dr. Randall McElwain and soloists Kirk and Ashley Marshall.

A reception followed at Yuma Fine Arts Gallery, and the wedding trip was to the north California coast. The couple lives in Hobe Sound, Fla.

The bride and groom both attend Hobe Sound Bible College; she is majoring in elementary education and he in ministerial studies. The bride is a 2004 graduate of Kofa High School, and the groom works for Hope International Missions public relations and for Adisson Draywall.

ENGAGEMENTS



GAMBOA-ATONDO



HANCOCK-HAYGOOD

Gamboa-Atondo

Sylvia A. Gamboa and Abraham Atondo are planning a February 2006 wedding at Our Lady of Guadalupe Chapel.

The daughter of the late Antonia N. De Santiago and Enrique C. Meza, and Juan Gamboa, of Yuma, she graduated from San Pasqual High School and is an office manager at Perico's Construction.

The son of Guillermo and Rosenda Atondo, of Yuma, he graduated from Yuma High School and is employed by Union Pacific Rail Road.

Hancock-Haygood

Lena Hancock and Daniel Haygood will wed March 25, 2006, at St. Paul's Cultural Center.

The bride-to-be is the daughter of Paula and Kurt Neils and of Laryl and John Hancock, all of Yuma. A graduate of Kofa High School, she has an associate of applied science degree and is an image space educator and radiology technologist at Yuma Regional Medical Center.

The son of Jennie and John Haygood of Yuma and of Pam and Chris Nodland of Montrose, Colo., the prospective bridegroom is an electrician at Yuma Proving Ground.

The Sun publishes engagement and wedding announcements (current and former Yuma residents) free of charge. Forms are available from the receptionist at The Sun, 2055 Arizona Ave. Photographs may also be submitted. They should be close-ups of the person or couple and be either a glossy or e-mailed. For more information, call 539-8668 or e-mail desertlife@yumasun.com.

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Share the news

> Yuma-area residents can report breaking news, such as fires and accidents, by calling 539-6875, which is available 24 hours a day.

The phone will be answered by newsroom staff members if they are available; otherwise callers can leave a message for a return phone call.

> Know a Yuma-area resident who has received special recognition? The Sun will help spread the word in the Namedroppers listing. Submit items by e-mail to desertlife@yumasun.com, fax to 782-7369, mail or bring to The Sun, 2055 Arizona Ave., Yuma, AZ 85364.

For more information, call 539-8668 or e-mail desertlife@yumasun.com.

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We need your ideas!

We need your comments to help us define the issues and alternatives as we evaluate the environmental impacts of a proposed project. Western Area Power Administration received a request to interconnect to our transmission system from Generadora del Desierto S.A. de C.V. and North Branch Resources, LLC. They plan to build a power plant just across the international border in Sonora, Mexico.

The project proponents requested Western build transmission lines connecting the proposed power plant to the existing Gila and North Gila substations near Yuma, Arizona. If approved, the project transmission line components would interconnect with and be owned, operated and maintained by Western. The project proponents have also applied to the Department of Energy for a presidential permit to construct, operate, maintain and connect electrical transmission facilities at the U.S. international border.

As part of their decision processes, Western and DOE's Office of Electricity Delivery and Energy Reliability will prepare an environmental impact statement to address the impacts within the United States of the proposed project. Staff from Western and the Electricity Delivery and Energy Reliability Office identified a preliminary list of issues to be addressed in the EIS. These include impacts on:

- Protected, threatened, endangered or sensitive species or animals or plants or their critical habitats
- Headlands and wetlands
- Cultural or historic resources
- Human health and safety
- Land use and agriculture
- Air, soil and water resources
- Visual effects
- Minority and low-income populations

We seek additional issues and concerns from the public to be considered in the EIS. Western will host informal public meetings, February 28, March 1, 9 and 10, to help define the scope of the San Luis Rio Colorado Project EIS. The meeting locations are handicapped accessible and an interpreter to assist Spanish-speaking persons will be available.

Join us on Feb 28 or March 9 in Yuma or March 1 or 10 in San Luis to learn more about this proposed project and to share your ideas:

Yuma Civic and Convention Center 1440 West Desert Hills Drive Feb. 28, 9 a.m. to 4 p.m. and 6 to 9 p.m. March 9, 1 to 4 and 5 to 8 p.m.	San Luis High School 1250 North 8th Ave. March 1, 9 a.m. to 4 p.m. and 6 to 9 p.m.
Fernando Padilla Community Center 800 East Juan Sanchez Blvd. March 10, 1 to 4 p.m. and 5 to 8 p.m.	

San Luis Rio Colorado Project

Need more info?

Contact Ms. Mark Wieringa, NEPA Document Manager,
Western Area Power Administration,
P.O. Box 287213, Lakeview, CO 80228-8213,
phone: 720-962-7448, fax: 720-962-7263,
e-mail: wieringa@wapa.gov.

For project materials in Spanish, contact Ms. Evee Marcum, Environmental Specialist, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, telephone (602) 605-2422, fax (602) 605-2414, e-mail: marcum@wapa.gov

Western
AMERICA'S POWER ADMINISTRATION

INTERNACIONALES

India amplía destrucción de aves de corral ante gripe aviaria

PRENSA ASOCIADA

NAVAPUR, India — Las autoridades de la India ampliaron el martes el sacrificio de las aves de corral para contener el virus H5N1 de la gripe aviaria, mientras que Malasia comenzó a sacrificar sus aves domésticas tras detectar el primer caso de la enfermedad en más de un año.

Mientras tanto, Indonesia analizará miles de aves de corral en su capital, y el gobierno de Hong Kong dijo que el cadáver de un ave silvestre encontrado en un mercado de flores estaba

infectado con el mortífero virus.

El virus H5N1 ha devastado millones de aves de corral y ha matado a los mayor parte a 92 personas, en su mayor parte en Asia, desde el 2003, según la Organización Mundial de la Salud. La mayor parte de los casos humanos fueron ligados a contactos con las aves infectadas. Sin embargo se teme que el virus pueda mutar en una forma fácilmente transmisible entre los seres humanos, ocasionando una pandemia.

Más de un millón de aves fueron sacrificadas en un distrito indio de Navapur

desde que fue descubierto el virus en una muestra tomada entre los 30 mil pollos que murieron recientemente. El gobierno piensa sacrificar 700 mil aves de corral en un radio de 3 kilómetros del foco infeccioso en el estado de Maharashtra.

El martes, las autoridades indias dijeron que ampliarán ese radio. "No queremos correr riesgo alguno", afirmó Anees Ahmed, un funcionario estatal de Maharashtra.

La ampliación de ese radio seguramente significará la destrucción de otras 100 mil aves, dijo un funcionario estatal que pidió no ser

identificado por no estar autorizado a difundir esa información.

Los granjeros locales lamentaron la destrucción de sus aves y se preguntaron cómo sobrevivirán.

"Es el medio de vida de 5 mil familias", afirmó Ghulam Vhora, miembro de la asociación de avicultores de Navapur, tras ser sacrificadas sus 30 mil aves. "Nos hemos quedado sin trabajo".

Las autoridades ordenaron que 48 granjas avícolas en torno a Navapur, al noreste de Bombay, sean vaciadas de aves y queden así durante tres meses.

Continúa búsqueda de sobrevivientes tras avalancha en Filipinas

Las posibilidades de encontrar personas con vida, bajo toneladas de denso lodo, disminuyen cada hora

movimiento de tierra y agua. Las posibilidades de encontrar personas con vida, bajo toneladas de denso lodo, disminuyen cada hora.

Joel Son, jefe de un equipo de rescate formado por mineros, dijo que el lodo era tan profundo que no se ha podido encontrar siquiera la escuela donde unos 300 niños quedaron sepultados cuando ocurrió la tragedia del viernes, en la población agrícola de Guinsaugon, en el este de Filipinas.

El olor de cadáveres en descomposición llenaba el centro de comando de las operaciones de ayuda, a un kilómetro de la zona del derrumbe.

Hasta ahora no ha sido encontrado nadie con vida, a pesar de haberse iniciado las acciones de rescate apenas unas horas después del desastre de la mañana del viernes y se estima que hay unos mil muertos en la población afectada, aunque el número confirmado hasta sobrevivientes o el

GUINSAUGON, Filipinas (AP) — La amenaza de más avalanchas causadas por la lluvia interfirió el martes con la búsqueda de sobrevivientes en una escuela cubierta por 35 metros de lodo cuando una montaña se derrumbó sobre un poblado la semana pasada.

Los equipos de rescate usaron sensores en un esfuerzo por detectar sonidos y movimientos similares a los registrados el lunes, aunque se desconoce si ello es generado por sobrevivientes o el

Concepción del Uruguay, provincia de Entre Ríos, en Argentina, ubicada sobre el margen del Río Uruguay.

La delegación local de la Prefectura Naval Argentina confirmó que recibió la denuncia de los pescadores y que se investiga el hecho.

El supuesto incidente ocurre con las relaciones entre ambos países en su punto más frío por la oposición argentina a la instalación de dos plantas de celulosa en la localidad uruguaya de Fray Bentos, frente a las costas de Entre Ríos, que se teme contaminen el medio ambiente de la zona.

En tanto que el portavoz de la armada uruguaya, Anselmo Borges, dijo a la AP que la prefectura argentina les comunicó lo ocurrido y que "de inmediato" ordenó a uno de sus buques que se dirigiera a la zona.

"No se pudo ver absolutamente nada. No había ninguna embarcación ni tampoco había gente en el margen uruguayo del río", agregó.

Acusación penal contra gobernador de Puebla por caso de periodista

PRENSA ASOCIADA

CD. DE MEXICO, México — Diputados del Partido de la Revolución Democrática (PRD) denunciaron el martes al gobernador del estado de Puebla, su procurador, una juez y un empresario textil involucrados en un supuesto complot para encarcelar a una periodista que denunció un caso de pedestería.

Los diputados Beatriz Mojica e Inti Muñoz presentaron la denuncia ante la Procuraduría General de la República (PGR) por la presunta comisión de abuso de autoridad, tráfico de influencias y corrupción de servidores públicos entre otros, los cuales están tipificados como delitos federales.

Lydia Cacho es autora del libro "Los Demonios del Edén" sobre redes de pedofilia, prostitución y pornografía infantil

Los legisladores izquierdistas llevaron como pruebas una serie de grabaciones de conversaciones telefónicas que medios mexicanos divulgaron la semana pasada y en las cuales presuntamente se escucha al gobernador Mario Marin y al empresario textil Kamel Nacif refiriéndose a una intriga para dejar en prisión a la periodista Lydia Cacho.

"Presumimos que hay elementos federales y también estamos pidiendo que se investigue la veracidad de las grabaciones", dijo a la prensa la diputada Mojica afuera de

las instalaciones de la PGR, en la capital del país.

Para el diputado Muñoz, a través de la denuncia buscan que "se haga justicia, que no haya impunidad en el caso del atropello cometido en contra de la reportera Lydia Cacho".

La denuncia fue presentada luego de que el jueves pasado la Cámara de Diputados exhortó al gobernador a que deje el cargo mientras se realiza una investigación, lo cual Marin no haría.

Marin, del Partido Revolucionario Institucional (PRI), ha negado haber

participado en la conversación con el empresario textil, aunque el jueves en una entrevista televisiva admitió que sí podría tratarse de su voz. De Nacif aún no se tiene una reacción.

Cacho es autora del libro "Los Demonios del Edén" sobre redes de pedofilia, prostitución y pornografía infantil, y fue detenida en diciembre del 2005 tras ser acusada de difamación por el empresario textil, quien es mencionado en el texto.

La periodista fue liberada bajo fianza poco después de su detención y aún enfrenta el proceso por difamación.

La denuncia de los legisladores se presentó contra Marin, la procuradora de Puebla Blanca Laura Villada, la juez Rosa Celia Pérez que giró la orden de aprehensión y el empresario textil.

Pescadores argentinos denuncian ataque desde ribera uruguaya

BUENOS AIRES, Argentina (AP) — Un grupo de argentinos que pescaba en el Río Uruguay denunció que fue atacado a tiros provenientes de la ribera uruguaya, incidente que se produjo en pleno conflicto entre los dos países por la instalación de plantas de celulosa en una zona fronteriza.

César Campi dijo el lunes al canal Todo Noticias de Buenos Aires que se encontraba pescando el domingo en una embarcación junto a otros tres adultos y dos menores a unos 300 metros de la costa uruguaya cuando "escuchamos disparos", uno de los cuales "picó cerca del bote".

"Nos gritaron 'vayan del otro lado, argentinos de m... y algunos insinúan más'", relató Campi, quien aclaró que no pudieron identificar a los agresores.

"Nosotros no los vimos. Estábamos anclados pescando y sentimos los disparos", agregó.

Los pescadores son oriundos de la localidad de Concepción del Uruguay, provincia de Entre Ríos, en Argentina, ubicada sobre el margen del Río Uruguay.

La delegación local de la Prefectura Naval Argentina confirmó que recibió la denuncia de los pescadores y que se investiga el hecho.

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"No se pudo ver absolutamente nada. No había ninguna embarcación ni tampoco había gente en el margen uruguayo del río", agregó.

Gobierno panameño suspende huelga de mecánicos

PANAMA, Panamá (AP) — El gobierno ordenó el lunes la suspensión de una huelga decretada por el sindicato de mecánicos de aviación de la aerolínea Copa Airlines y llamó a un arbitraje para resolver las exigencias salariales de los trabajadores.

Alrededor de 170 mecánicos de la empresa de bandera panameña arrancaron la huelga poco después del mediodía, pero luego se dio el orden del ministerio de

trabajo, que consideró "inviolable" la medida de protesta.

El director general de trabajo, Rodolfo Stanzola, informó en rueda de prensa que notificó a ambas partes la decisión del arbitraje.

El gobierno tiene postulado un arbitraje que otorga cuando se trata de servicios estratégicos para el país.

"Se trata de evitar graves efectos para el país, en especial la afectación de los

usuarios nacionales y extranjeros", indicó.

El Sindicato de Técnicos de Mantenimiento de Aeronaves de Panamá acató la orden del ministerio de trabajo, mientras que Copa Airlines destacó en un comunicado que espera que el tribunal de arbitraje "tomará las mejores decisiones para el bienestar del personal y el futuro de la empresa".

Los mecánicos, cuyos sueldos al mes están por los

600 dólares, exigieron un aumento de 31%.

Pese al conflicto, los servicios de la aerolínea no fueron suspendidos en ningún momento.

Copa, que tiene una alianza con la estadounidense Continental Airlines, ofrece actualmente 80 vuelos diarios a 30 destinos en los países en Norteamérica, Centroamérica, Sudamérica y el Caribe.

Copa tiene una planilla que supera los 3 mil empleados.

Saca viaje a Miami antes de reunirse con Bush

SAN SALVADOR, El Salvador (AP) — El presidente Tony Saca se reunió con congresistas en Miami antes de su encuentro del viernes con su colega estadounidense George W. Bush en la Casa Blanca.

Saca abordará en su gira los temas del tratado de libre comercio (CAFTA-RD) y la extensión de un programa migratorio para decenas de salvadoreños que residen en Estados Unidos.

El mandatario viajará este miércoles a Miami y el jueves se reunirá con el senador John McCain, y los congresistas republicanos Lincoln y Mark Diaz-Balart e Ileana Ros-Lehtinen.

Se tenía programado que llegara el jueves por la noche de Washington donde se le otorgaría el reconocimiento de "Personaje del año" por parte de la Cámara Salvadoreña Americana de la ciudad.

Hoy viernes tiene programado reunirse a las 13:15 horas con el presidente Bush en la Casa Blanca. Se prevé una conferencia de prensa tras el encuentro de unos 30 minutos.

Saca ha reiterado que en la reunión con Bush espera la confirmación de que El Salvador está listo para iniciar con Estados Unidos el

El Presidente espera la confirmación de que El Salvador está listo para iniciar con Estados Unidos el CAFTA-RD

CAFTA-RD a partir del primero de marzo.

Solicitó además a Bush la extensión del TPS, las siglas en inglés del programa de protección temporal migratorio que otorga permiso de trabajo para más de 250.000 salvadoreños y que vence el 9 de septiembre.

La extensión del programa, otorgado por Bush tras los terremotos del 2001 en este país, es de fundamental importancia debido a que las remesas que envían los salvadoreños desde Estados Unidos ayudan a la economía local.

Saca viajará acompañado por el canciller Francisco Laínez, la ministra de economía, Yolanda Gavidia, el ministro de gobernación, René Figueroa, entre otros funcionarios. La delegación regresa el sábado, se informó.

¡Necesitamos sus ideas!

Necesitamos recibir comentarios que nos ayuden a definir los problemas y las alternativas en la evaluación de los impactos ambientales de un proyecto preparativo Western Area Power Administration (WAPA) sobre una subestación de generación del desierto S.A. de C.V. y North Branch Resources, LLC, para implementar un nuevo sistema de transmisión. Pléase enviar una copia postal del formulario de la frontera internacional en Sonora, México.

Los proponentes del proyecto solo desean a Western la construcción de líneas de transmisión para conectar la planta propuesta a las subestaciones de Gila y North Gila, en cercanías de Yuma, Arizona. Si se concede la aprobación, 205 componentes de las líneas de transmisión se interconectarán a Western, que será la propietaria y estará a cargo de la operación y el mantenimiento. Los proponentes del proyecto también han solicitado un permiso de la presidencia ante el Departamento de Energía, con el fin de construir, operar, mantener y conectar instalaciones de transmisión eléctrica a la frontera internacional con los Estados Unidos.

Como parte de los procesos de toma de decisiones, Western y la Oficina de Suministro de Electricidad y Fiabilidad de la Energía del Departamento de Energía prepararon una declaración del impacto ambiental a fin de abordar las preocupaciones del proyecto propuesto en los Estados Unidos. Los funcionarios de Western y de la Oficina de Suministro de Electricidad y Fiabilidad de la Energía identificaron una lista preliminar de cuestiones que se deberán abordar en la declaración. Las cuales comprenden preocupaciones en:

- Pájaros protegidos, aves en peligro de extinción sensibles de anillado o plantas o aves hábitat crítico
- Recursos del agua, el suelo y el agua
- Cultivos agrícolas y maderas
- Recursos culturales o históricos
- Relaciones de minorías y de bajos ingresos
- Salud y seguridad humana
- Uso de la tierra y agricultura
- Recursos del aire, el suelo y el agua
- Efectos visuales
- Relaciones de minorías y de bajos ingresos

Desearíamos que el público nos comunicara otros problemas e inquietudes que pueda tener a fin de incluirlos en la declaración de impacto ambiental.

El 28 de febrero en primer turno (de 9:00 a 12:00) y el 10 de marzo, Western celebrará reuniones públicas informales en un intento por definir el alcance de la declaración de impacto ambiental para el Proyecto en San Luis Río Colorado. Las instalaciones del lugar donde se celebrará la reunión permitirán acceso de persona a persona y se contacta con un teléfono para ayudar a las personas hipovisuales.

Participa el 28 de febrero o 9 de marzo en Yuma o el primero de marzo o 10 de marzo en San Luis para saber más sobre este proyecto propuesto y compartir sus ideas:

Yuma Civic and Convention Center
1640 West Desert Hills Drive
28 de febrero, de 9:00 a 12:00, o de 12:00 a 2:00 p.m.
9 de marzo, de 9:00 a 12:00, o de 12:00 a 2:00 p.m.

San Luis High School
1250 North 4th Ave.
primero de marzo, de 9:00 a 12:00, o de 12:00 a 2:00 p.m.
Fernando Padilla Community Center
400 East Juan Sanchez Blvd.
10 de marzo, de 11:00 a 12:00, o de 12:00 a 2:00 p.m.

Proyecto en San Luis Río Colorado

¿Necesita más información?

Comuníquese con el Sr. Mark Weiriga, Gerente de documentos de NEPA, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228-2113, teléfono: 720-962-7448, fax: 720-962-7263, correo electrónico: weiriga@wapa.gov.

Si necesita materiales sobre el proyecto en español, comuníquese con la Sra. Enoc Marcum, Especialista ambiental, Desert Southwest Customer Service Region, Western Area Power Administration, P.O. Box 6457, Phoenix, AZ 85005, Teléfono: (602) 605-2422, fax: (602) 605-2414, correo electrónico: marcum@wapa.gov.

Western
ARIZONA, CALIFORNIA
ADMINISTRACIÓN DE ENERGÍA

YUMA AND REGION

Ski resort sets record for no-show snow in Flag

ASSOCIATED PRESS

FLAGSTAFF — A ski resort that's operated for almost 70 years is facing its first-ever winter without a day of skiing. The Arizona Snowbowl resort normally opens in mid-December and logs about 108 days of skiing and other winter sports each winter. A normal winter would bring 22 feet of snow.

This year, the Snowbowl has gotten 22 inches of snow, and most has melted off.

The resort will break a record for its latest-ever opening Sunday. And it's possible it won't open at all this year.

Snowbowl could still open in the early of March if a monster snowstorm were to arrive, General Manager J.R. Murray said.

The resort's full-time staff of 30 has been kept busy cleaning and smoothing the terrain on ski runs, he said. About 600 seasonal workers have been out of work.

The resort's operators have been trying to add snowmaking equipment for years, but the effort has been tied up in the courts.

Police arrest woman after child dies in car

ASSOCIATED PRESS

SCOTTSDALE — A woman whose daughter died after being trapped in a hot vehicle last year was arrested after police acted on a tip that she was preparing to leave town.

Celene Gray, 35, was indicted Jan. 31 by a Maricopa County grand jury on a child abuse charge relating to the death and also had an outstanding warrant on an unrelated aggravated DUI charge, authorities said.

Police stepped up efforts to locate her after she missed a court hearing two weeks ago. Officers arrested Gray on Wednesday.

On Sept. 10, Gray picked up her three children from her estranged husband, drove home and fell asleep, police records show.

Her 4-year-old daughter, Haley, somehow got into Gray's car and locked herself in. Police found her an hour later, choking on her own vomit. She died four days later.

Gray was being held Friday in the Maricopa County jail in Phoenix on a \$50,000 bond.

SEAT BELT SAVED HER LIFE



PHOTO BY JACOB LOPEZ/THE SUN

Yuma Fire Department firefighters carry the female driver of a Jeep that rolled multiple times onto the median of Interstate 8 near Giss Parkway. Highway patrolman Ed Simpson said he did not know the cause of the rollover, but he did say she was heading eastbound when she lost control of the vehicle and ended up near the westbound lanes. Simpson added that she suffered serious head injuries, but she is lucky because she was wearing her seat belt. "Driving in that Jeep, it was imperative she was wearing her seat belt," he said.

Kitchen band makes merry with pots, pans

ASSOCIATED PRESS

CASA GRANDE — It is hard to describe the music created by the Sunscape Kitchen Band.

The wind section sounds the way angels must sound when they hum. The percussion section sounds, at different times, like crickets, wind through pine trees, popcorn popping, rain falling, wind-up toys and elves playing with spoons.

All together, the result is full-sized, feel-good, music-box music.

"It's just to have fun, have a good time and be with people," said G.H. Sublett, a pastor from Missouri who plays a stump fiddle — a folk instrument common in Wisconsin and Minnesota that is made of a pie pan, bicycle horn, bicycle bell, dinner bell, wooden block and numerous tiny bells attached to a pipe strung with door springs. And Sublett uses a wire whisk and whistles to play the instrument. Linnea Bolm, the choral

director at Sunscape RV Resort, plays a teapot, while her bandmate, Betty Livingston, plays Bolm's mother's washboard.

"It's just fun, and you don't have to have talent to play with the kitchen band," said Livingston, a retired nurse from Montana. "I don't have any talent. I can't carry a tune in a bucket. But I must have a little rhythm, because I can play the washboard."

Bolm added, "I used to wash clothes on it."

Bolm's chosen instrument, the teapot, has different tones, which are played in harmony. The musicians hum and blow into the spoons while covering and uncovering the unlidged pots to create a wah-wah effect.



ASSOCIATED PRESS

DON WEBER ON DRUMS (left), Naomi Andrews on pie pan, and Betty Livingston on washboard (right) play a song together Jan. 30 at their kitchen band performs at Sunscape RV Resort near Coolidge.

What's the latest news? Find out what's happening locally, nationally and internationally. Check out The Sun's Internet Web page at <http://www.YumaSun.com>

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This event is only open to city residents. Household Hazardous Waste or commercial waste will not be accepted.

For more information call, City of Yuma, Public Works Department at 373-4500.

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We need your ideas!

We need your comments to help us define the issues and alternatives as we evaluate the environmental impacts of a proposed project. Western Area Power Administration received a request to interconnect to our transmission system from Generadora del Desierto S.A. de C.V. and North Branch Resources, LLC. They plan to build a power plant just across the international border in Sonora, Mexico.

The project proponents requested Western build transmission lines connecting the proposed power plant to the existing Gila and North Gila substations near Yuma, Arizona. If approved, the project transmission line components would interconnect with and be owned, operated and maintained by Western. The project proponents have also applied to the Department of Energy for a presidential permit to construct, operate, maintain and connect electrical transmission facilities at the U.S. international border.

As part of their decision processes, Western and DOE's Office of Electricity Delivery and Energy Reliability will prepare an environmental impact statement to address the impacts within the United States of the proposed project. Staff from Western and the Electricity Delivery and Energy Reliability Office identified a preliminary list of issues to be addressed in the EIS. These include impacts on:

- Protected, threatened, endangered or sensitive species of animals or plants or their critical habitats
- Floodplains and wetlands
- Cultural or historic resources
- Human health and safety
- Land use and agricultural practices
- Air, soil and water resources
- Visual effects
- Minority and low-income populations

We seek additional issues and concerns from the public to be considered in the EIS. Western will host informal public meetings, February 28, March 1, 9 and 10, to help define the scope of the San Luis Rio Colorado Project EIS. The meeting locations are handicapped accessible and an interpreter to assist Spanish-speaking persons will be available.

Join us on Feb 28 or March 9 in Yuma or March 1 or 10 in San Luis to learn more about this proposed project and to share your ideas:

Yuma Civic and Convention Center
1440 West Desert Hills Drive
Feb. 28, 9 a.m. to 4 p.m. and 6 to 9 p.m.
March 9, 1 to 4 and 5 to 8 p.m.

San Luis High School
1250 North 8th Ave
March 1, 9 a.m. to 4 p.m. and 6 to 9 p.m.

Fernando Padilla Community Center
800 East Juan Sanchez Blvd.
March 10, 1 to 4 p.m. and 5 to 8 p.m.

San Luis Rio Colorado Project

Need more info?

Contact Ms. Mark Wieringa, NEPA Document Manager,
Western Area Power Administration,
P.O. Box 281213, Lakewood, CO 80228-8213,
phone: 720-962-7448, fax: 720-962-7263,
e-mail: wieringa@wapa.gov.

For project materials in Spanish,
contact Ms. Ernie Marcum, Environmental Specialist,
Desert Southwest Customer Service Region,
Western Area Power Administration,
P.O. Box 6457, Phoenix, AZ 85005,
telephone: (602) 605-2422, fax: (602) 605-2414,
e-mail: marcum@wapa.gov

Burns set for Imperial refuge area

FROM STAFF REPORTS

Yumans may see smoke on the horizon as soon as Tuesday when firefighters conduct two prescribed burns to create new habitats for endangered birds and fish.

The burns will clear 110 acres on the Imperial National Wildlife Refuge to promote new growth of cattail marshes for the Yuma clapper rail, an endangered bird, and to clear an area for a pond for fish such as the bonytail chub and razorback sucker, said Sue McDonald, visitor services manager for the refuge.

The acreage to be burned is located along the Colorado River about 10 miles upstream from Yuma, she said.

"(Smoke) will be visible even from Yuma, I'm assuming," McDonald said. "One of the fires will be pretty big."

Residents of Martinez Lake and motorists traveling along Highway 95 northeast of Yuma also will see the smoke, according to a news release from the Fish and Wildlife Service.

The service said it will monitor the weather to find a time when conditions pose no risk of the fires getting out of control. Ideally, both burns can be started and finished Tuesday, McDonald said.

"It's all weather-dependent," she said. "If it's too windy, we won't do it (Tuesday)."

The larger of the two fires will clear an area that will then be excavated for a pond for the fish, she said.

The other fire will burn an area of dead and decaying cattails that have become too dense to be habitable to the clapper rail any longer, McDonald said.

"You burn it and it opens it up for (new habitat) for wildlife," she said.

Firefighters with the Fish and Wildlife Service and the Bureau of Land Management and refuge personnel will be working together on the burns.

SECOND NOTICE

February 2006

The proposed San Luis Rio Colorado Project

YUMA COUNTY, ARIZONA

We need your ideas!

Western Area Power Administration will be holding scoping meetings for the proposed San Luis Rio Colorado Project.

Please join us to learn more about this proposed project and share your ideas.

Initial scoping meetings:

February 28, 9 a.m. to 4 p.m. and 6 to 9 p.m.
Yuma Civic and Convention Center
1440 West Desert Hills Drive
Yuma, Arizona

March 1, 9 a.m. to 4 p.m. and 6 to 9 p.m.
San Luis High School
1250 North 8th Avenue
San Luis, Arizona

Additional scoping meetings:

March 9, 1 to 4 p.m. and 5 to 8 p.m.
Yuma Civic and Convention Center
1440 West Desert Hills Drive
Yuma, Arizona

March 10, 1 to 4 p.m. and 5 to 8 p.m.
Fernando Padilla Community Center
800 East Juan Sanchez Boulevard
San Luis, Arizona

SEGUNDA NOTICIA

Febrero 2006

la propuesta del Proyecto San Luis Río Colorado

EN EL CONDADO DE YUMA, ARIZONA

¡Necesitamos su opinion!

Western Area Power Administration realizara reuniones para determinar el impacto del proyecto San Luis Rio Colorado en esta zona.

Por favor asista a estas reuniones y comparta sus ideas con nosotros.

Dias y lugar en el que se realizar las reuniones:

Febrero 28 de las 9 de la mañana a las 4 de la tarde
y de las 6 a las 9 de la noche
En el Centro Civico de Convenciones de Yuma
1440 West Desert Hills Drive
Yuma, Arizona

Marzo 1 de las 9 de la mañana a las 4 de la tarde
y de las 6 a las 9 de la noche
En el High School de San Luis
1250 North 8th Avenue
San Luis, Arizona

Se realizaran reuniones adicionales en:

Marzo 9 de la 1 a las 4 de la tarde
y de las 5 a las 8 de la noche
En el Centro Civico de Convenciones de Yuma
1440 West Desert Hills Drive
Yuma, Arizona

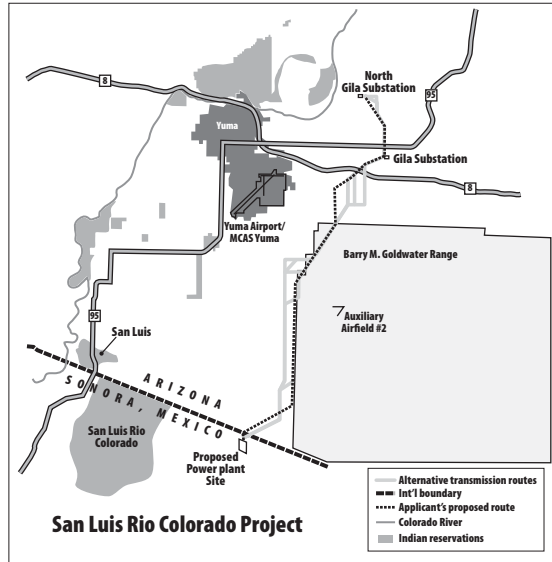
Marzo 10 de la 1 a las cuatro de la tarde
y de la 5 a las 8 de noche
En el Fernando Padilla Community Center
800 East Juan Sanchez Boulevard
San Luis, Arizona



U.S. Department of Energy A7400
 Western Area Power Administration
 P.O. Box 281213
 Lakewood, CO 80228-8213

Western issues Draft Environmental Impact Statement on proposed San Luis Rio Colorado Project Public hearing set, comments invited

You are invited to review Western's draft environmental findings on the San Luis Rio Colorado Project, proposed for Yuma County, AZ. We need your comments to ensure we've addressed all relevant issues and alternatives. To help you understand the proposed project and the findings from our environmental report, Western scheduled an afternoon session and an evening session, Dec. 7 in Yuma, AZ. Each session will begin with an open house followed by a public hearing. You may attend either the afternoon or evening session. Meeting facilities are wheelchair accessible and a Spanish-speaking representative will be present. Please contact us at 602-605-2592 if you need other accommodations to attend the open house or hearing.



Western issued a draft environmental impact statement for a proposed transmission line that would originate at the proposed San Luis Rio Colorado Power Center in Mexico; interconnect with the existing Gila Substation, east of Yuma; and continue to the existing North Gila Substation, northeast of Yuma. The draft EIS is available for review at libraries in Yuma, Foothills, San Luis, and Somerton, AZ. You can also request a copy via Western's Web site at www.wapa.gov/transmission/intersanluis.htm or by completing and mailing the attached postcard to us—no postage required.

Open house
2 to 3 p.m.
Public hearing
3 to 5 p.m.

OR

Open house
6 to 7 p.m.
Public hearing
7 to 9 p.m.

Dec. 7, 2006
Yuma Civic and Convention Center
1440 West Desert Hills Drive
Yuma, AZ

To learn more about the project or share your comments:

- Visit our Web site
- Attend the open house or public hearing
- Comment on the Draft EIS

Send us your comments on the Draft EIS in writing by fax, mail or e-mail. Comments must be received by Dec. 26, 2006.

Send comments to:

Mr. John Holt, Environment Manager
Western Area Power Administration
Desert Southwest Customer Service Region
PO Box 6457
Phoenix, AZ 85005
Phone: 602-605-2592
Fax: 602-605-2630
E-mail: holt@wapa.gov

Para información en español sobre el proyecto, comuníquese con:

Ms. Enoe Marcum, Environmental Specialist
Western Area Power Administration
Desert Southwest Customer Service Region
P.O. Box 6457
Phoenix, AZ 85005
Phone: 602-605-2422, Fax: 602-605-2414
E-mail: marcum@wapa.gov

Please send me a copy of the San Luis Rio Colorado Project Draft Environmental Impact Statement

- I'd like to receive the DEIS in the following format: Send me a copy on CD-ROM
 Send me a printed copy (about 350 pages)
 Send me only the executive summary (about 30 pages)

Para información en español sobre el proyecto, visite www.wapa.gov/transmission/intersanluis.htm

Tell us how to reach you

Please give us your contact information so we can send you the San Luis Rio Colorado Project DEIS and keep you updated about the project. Western will not share your contact information with other organizations.

Name/Title: _____
Organization: _____
Mailing address: _____
City, State, Zip: _____
Phone/Fax/E-mail: _____

San Luis Rio Colorado Project Specific issues studied, findings of Draft Environmental Impact Statement

These issues and concerns were identified during scoping and are addressed in the San Luis Rio Colorado Project Draft EIS:

- Agriculture
- Air quality
- Aviation safety
- Cost of power
- Cumulative impacts
- Environmental process
- Health and safety
- Land use compatibility
- Paleontology
- How project power would be marketed
- Power supply
- Project description
- Threatened, endangered and special status species
- Transmission line route and configuration
- Visual impacts
- Water
- Out-of-scope issues, including actions and processes in Mexico

The Draft EIS concludes that while impacts to environmental resources would occur, no significant long-term impacts to resources are expected from

constructing, connecting, operating and maintaining the proposed project. Short-term effects would be primarily related to construction activities and would be minor and temporary.

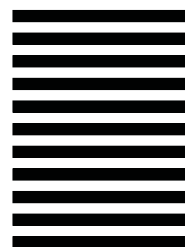
There is one significant impact that was not mitigated—a conflict with the City of Yuma’s plans to build the East Yuma Freeway. The city passed a resolution opposing the project, so there is one unmitigated significant impact regarding the use of right of way within the City of Yuma.

Where can I review the Draft EIS?
 Copies of the Draft EIS are available for review at:

- **Yuma County Library**
 350 3rd Avenue
 Yuma, AZ 85364
 928-782-1871
- **Foothills Branch Library**
 11299 S Glenwood Ave.
 Yuma, AZ 85367
 928-342-1640
- **San Luis Branch Library**
 731 N 1st Avenue.
 San Luis, AZ 85349
 928-627-8344
- **Somerton Branch Library**
 240 Canal Street
 Somerton, AZ 85335
 928-627-2149



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BUSINESS REPLY MAIL
 FIRST-CLASS MAIL PERMIT NO. 14532 PHOENIX, AZ
 POSTAGE WILL BE PAID BY ADDRESSEE

**MR. JOHN HOLT, ENVIRONMENTAL MANAGER
 DESERT SOUTHWEST CUSTOMER SERVICE REGION
 WESTERN AREA POWER ADMINISTRATION
 P.O. BOX 6457
 PHOENIX, AZ 85005-9923**



INTERNACIONALES

Busca gobierno peruano "erradicar" remanentes

"Queremos darle un enfoque integral (a la lucha contrainsurgente)"

NOTIMEX

LIMA, Perú — El gobierno peruano trazó hoy la meta de "erradicar" en un plazo de cinco años los remanentes del grupo rebelde Sendero Luminoso, cuya estructura nacional fue desarticulada la década pasada, anunció el Ministerio de Defensa.

El titular de la dependencia, Allan Wagner, afirmó este lunes en declaraciones a periodistas que las autoridades implementarán varias estrategias para terminar con los rezagos senderistas, aunque sin precisar cuáles. "Queremos darle un enfoque integral (a la lucha contrainsurgente)", puntualizó el funcionario al estimar que unos 500 miembros de Sendero Luminoso continúan operaciones rebeldes en los valles de los ríos Apurímac y Ene.

Wagner afirmó que los remanentes rebeldes y los grupos de narcotraficantes han celebrado una especie de "alianza estratégica" mediante la cual los primeros brindan protección a los segundos a cambio de fuertes sumas de dinero.

Recordó que el Estado establecerá guarniciones militares y policiales y, al mismo tiempo, impulsará una estrategia de desarrollo en las zonas más pobres. Medios locales han reportado que en diversos puntos del país han aparecido pintas, volantes y amenazas contra el gobierno del presidente Alan García, al que Sendero Luminoso acusa de haber violado los derechos humanos en su anterior gobierno (1985-1990).

Datos de las Fuerzas Armadas indican que Sendero Luminoso vive un proceso de "acumulación de fuerzas" como parte de una estrategia hacia su segunda reorganización, lo cual marcaría el punto de inicio de su nueva "lucha armada".

Reportes de inteligencia indicaron que los alzados en armas se han infiltrado en organizaciones populares, sindicatos, barrios y circuitos universitarios ante la poca competencia que representan los partidos políticos.

Asume López Obrador su "presidencia"



SE LLEVO A cabo este 20 de noviembre el tradicional desfile deportivo en conmemoración, de la edición número 96 del aniversario de la Revolución Mexicana en la que participaron las fuerzas militares, colegios particulares y escuelas de la ciudad de México.

NOTIMEX

CD DE MÉXICO, Méx. — En punto de las 5:00 de la tarde del lunes 20 de noviembre, Andrés Manuel López Obrador asumió el cargo de "presidente legítimo" que le confirió la Convención Nacional Democrática, luego de haber sido derrotado en la pasada

elección presidencial del 2 de julio.

Ante miles de simpatizantes reunidos en el Zócalo capitalino, el perredista aceptó cumplir y hacer cumplir la Constitución de la República.

La prensa internacional dio cuenta hoy de la "toma de posesión" de Andrés Manuel López Obrador como "presidente legítimo" de

México, en un acto que fue realizado en la explanada del Zócalo de la capital mexicana.

Sitios de noticias como los de los diarios Houston Chronicle y Boston Globe reprodujeron notas de agencias internacionales de noticias sobre el acontecimiento en las que se reportó que López Obrador lanzó un gobierno paralelo al juramentar al cargo.



SE LLEVO A cabo este 20 de noviembre el tradicional desfile deportivo en conmemoración, de la edición número 96 del aniversario de la Revolución Mexicana en la que participaron las fuerzas militares, colegios particulares y escuelas de la ciudad de México.

Arrestan a paramilitar serbio acusado de matar a 200 prisioneros

NOTIMEX

MADRID, España — Damir Sireta, un paramilitar serbio sospechoso de haber tomado parte en las ejecuciones de unos 200 prisioneros de guerra croatas del conflicto de 1991, fue arrestado hoy en Noruega.

La fiscalía del Tribunal para crímenes de guerra serbio confirmó la detención de Sireta en Noruega tras haberse emitido una orden de arresto internacional contra él, sin embargo, las autoridades noruegas no han dado información al respecto.

Sireta es "sospechoso de haber tomado parte en la ejecución de 200 prisioneros de guerra en la granja de Ovcara", en las inmediaciones del localidad de Vukovar (este) en noviembre de 1991.

Otros 15 paramilitares

fueron sentenciados a más de 20 años de prisión por el tribunal para crímenes de guerra serbio por su participación en estos asesinatos.

En 1991, la declaración de independencia de Croacia de la antigua Yugoslavia provocó una rebelión por parte de la etnia serbia, que con el apoyo de Belgrado, ocupó un tercio del territorio croata.

Cuatro años más tarde, el conflicto finalizó cuando Croacia recuperó los territorios.

Mientras la mayor parte de los capturados en Vukovar fueron liberados, unos 200 fueron sacados de un hospital poco después de ser aprehendidos y asesinados en una granja cercana de cerdos en la localidad de Ovcara.

Sireta, miembro de una unidad de "defensa territorial" serbocroata, tomó parte en la ejecución cuando los prisioneros croatas fueron separados en grupos de ocho y apuñalados con ametralladoras.

Rechaza Pakistán acuerdo con China

Insisten en que no existe ningún acuerdo nuclear chino-paquistaní

NOTIMEX

TOKIO, Japón — La cancillería paquistaní rechazó hoy un supuesto acuerdo con China para la construcción de varias plantas nucleares, que según reportes de prensa, se concretará durante la visita que hará el presidente chino Hu Jintao a Pakistán esta semana.

"Todos esos informes de que sería firmado un acuerdo sobre un número de plantas nucleares (entre Pakistán y China) son especulativos", afirmó la portavoz del ministerio paquistaní del Exterior, Tasneem Aslam.

Durante su conferencia de prensa semanal, la funcionaria afirmó que en la visita de Hu a Pakistán, que iniciará el jueves próximo, sólo está prevista la firma de un docena de acuerdos comerciales, que representará una inversión de unos 15.000 millones de dólares.

Aslam insistió en que no existe ningún acuerdo nuclear chino-paquistaní, aunque aclaró que desde hace mucho tiempo ambas naciones tiene una estrecha

cooperación en asuntos de tecnología y energía nuclear civil, según informes de prensa conocidos en esta capital.

De acuerdo con los reportes de varios medios occidentales Beijing e Islamabad estarían planeando la construcción de al menos dos plantas nucleares en playas de la sureña ciudad portuaria de Karachi con inversión china.

Desde hace más de un año, Pakistán ha negociado con China la construcción de las plantas nucleares, que podrían ser hasta seis, según reporte de la agencia japonesa Kyodo.

En la actualidad, Islamabad tiene en operación una planta nuclear con capacidad de 137 megawatts en Karachi y una de 300 megawatts en el distrito de Minwall, en la vecina Punjab, mientras que está en construcción otra en esa provincia con asistencia china.

En sus declaraciones a la prensa, reproducidas por la agencia paquistaní APP, la vocera de la itineraria detalló el itinerario de la visita de cuatro días de Hu a Pakistán, que además de Islamabad incluye la ciudad de Lahore.

Respalda el gobierno de Argentina el reclamo marítimo boliviano

NOTIMEX

LA PAZ, Bolivia — La ministra de Defensa de Argentina, Nilda Garré, respaldó hoy aquí el reclamo boliviano de recuperar una salida al mar que perdió en una guerra con Chile y anunció el envío de equipos militares para apoyar a campañan sanitarias en Bolivia.

"Argentina siempre apoyó la reivindicación marítima boliviana. Creemos firmemente que hay que buscar, mediante el diálogo profundo y con la mejor buena voluntad, soluciones a los problemas que aún subsisten en la región", puntualizó Garré en conferencia de prensa.

La funcionaria, quien realiza una visita oficial a Bolivia y sostuvo este lunes una reunión con el mandatario boliviano Evo Morales, señaló además que "este continente es una región de paz y se deben hacer todos los esfuerzos para que Sudamérica siga en paz".

En esa línea, se pronunció

por "tratar que los conflictos pendientes (entre Bolivia y Chile) se resuelvan con el diálogo entre sus pueblos".

Bolivia perdió su salida al mar en la llamada Guerra del Pacífico (1879-1883) y en los últimos años intensificó su reclamo de recuperar su condición marítima, aunque el gobierno de Chile argumenta que no hay temas territoriales pendientes.

La ministra Garré anunció por otra parte que su país entregará a las Fuerzas Armadas de Bolivia vehículos militares y lanchas que serán reacondicionadas para consultorios médicos y equipos potabilizadores de agua.

Garré enfatizó que Argentina estará a disposición para colaborar en cualquier área en Bolivia y otros países de la región en temas como desastres naturales, cooperación fronteriza y otros.

Detalle que su país entregará a Bolivia 20 vehículos tipo "Oruga" que se encuentran en la región argentina de La Quiaca y dos vehículos anfíbios equipados con equipos médicos y dos plantas potabilizadoras.

Queremos saber de usted

Usted está invitado a revisar los resultados preliminares del informe ambiental de Western acerca del Proyecto "San Luis Rio Colorado", propuesto para el Condado de Yuma. Necesitamos sus comentarios para asegurarnos de que hemos abordado todas las alternativas y los asuntos relevantes.

Únase a nosotros el 7 de diciembre en Yuma para conocer más sobre el análisis ambiental y compartir sus comentarios:

<p>Reunión abierta, de 2 p.m. a 3 p.m.</p> <p>Audiencia pública, de 3 p.m. a 5 p.m.</p>	o bien	<p>Reunión abierta, de 6 p.m. a 7 p.m.</p> <p>Audiencia pública, de 7 p.m. a 9 p.m.</p>
---	--------	---

7 de diciembre
Yuma Civic and Convention Center
1440 West Desert Hills Drive, Yuma, AZ

Western ha completado una declaración preliminar del impacto ambiental de una línea de transmisión propuesta que se originaría en el Centro de Energía Eléctrica San Luis Rio Colorado en México; se interconectaría con la Subestación Gila existente, al este de Yuma; y continuaría hasta la Subestación Gila Norte existente, al noreste de Yuma.

Para ayudar a comprender el proyecto propuesto y los resultados de nuestro informe ambiental, Western realizará una reunión abierta el día 7 de diciembre de 3 p.m. a 6 p.m. en Yuma, AZ. Si puede, se realizará una audiencia pública para escuchar comentarios a las 7 p.m.

Se puede acceder en silla de ruedas a todas las instalaciones en que se realizan las reuniones y se encontrará presente un representante que habla español. Comuníquese con Western llamando al 602-605-2592 si necesita algún otro tipo de adaptación para asistir a la reunión abierta o a la audiencia.

Hay una Declaración de Impacto Ambiental (DIA) preliminar disponible para su revisión en las bibliotecas de Yuma, Footbills, San Luis y Somerton, Arizona. Usted también puede solicitar una copia a través del sitio web de Western en www.wspa.gov/transmission/intersanlu/.

Proyecto en San Luis Rio Colorado

● Línea de Transmisión Propuesta
 ● Línea de Transmisión Existente
 ● Línea de Transmisión Planificada
 ● Línea de Transmisión Planificada
 ● Línea de Transmisión Planificada

Envíe sus comentarios antes del 27 de diciembre a:

Mr. John Hill, Environment Manager
 Western Area Power Administration,
 Desert Southwest Customer Service Region
 P.O. Box 6457, Phoenix, AZ 85005
 Teléfono: 602-605-2592, Fax: 602-605-2630
 Correo Electrónico: hillj@wapa.gov

Para obtener información sobre el proyecto en español, comuníquese con:
 Ms. Enne Martum, Environmental Specialist
 Western Area Power Administration
 Desert Southwest Customer Service Region
 P.O. Box 6457, Phoenix, AZ 85005
 Teléfono: 602-605-2422, Fax: 602-605-2414
 Correo Electrónico: marcum@wapa.gov

BUSINESS

ARIZONA BUSINESS GLANCE

ASSOCIATED PRESS

Fate of east Phoenix bottling plant unknown PHOENIX — The fate of a year-old bottling plant in east Phoenix is unclear because of the financial troubles of its owner, Le-Nature's Inc.

The highly visible building, which is directly off a major freeway, has been vacant since the plant was shut down Nov. 6 and all 85 workers there were laid off.

US Airways plans to expand in Tempe TEMPE — US Airways says it's planning to move forward with long-standing plans to expand its presence in downtown Tempe and has recently developed drawings for a multi-story building on one of the city's main streets.

"I know that I've had quite a few calls from various brokers and real estate people interested in the facility, and I've been told to pass those to a set of bankers," said Brenda Adrian, a company spokeswoman.

Le-Nature's has been in bankruptcy proceedings since late October. Creditors had filed for

involuntary liquidation after a judge ruled that founder and CEO Gregory J. Podlucky and other directors may have engaged in criminal conduct by misreporting financial information.

Le-Nature's makes bottled waters, teas, juices and nutritional drinks. It was founded in 1989 and later began marketing drinks under the Le-Nature's name.

US Airways spokesman Morgan Durrant said the company doesn't expect efforts on the new building on Tempe's Mill Avenue to slow despite the potential deal.

Durrant said that merger has not stalled the project, but the airline isn't ready to divulge any details or give a timeline.

Environmental groups protest Tucson beryllium plant

TUCSON — Two environmental groups have appealed a decision to allow a beryllium plant in Tucson to renew its air-quality permit.

The Pima County Department of Environmental Quality announced last month that

Brush Ceramic Products would be granted a five-year air-quality permit.

The company, part of Cleveland, Ohio-based Brush

Wellman Engineered Materials Inc., is the nation's largest producer of beryllium oxide products.

Beryllium is a light metal used in nuclear components that can also be present in soil. In elevated levels, it can cause a potentially fatal lung disease.

Thirty-five workers at the Tucson plant have contracted incurable chronic beryllium disease, which slowly suffocates its victims. At least two have died.

Additionally, trace amounts of beryllium have been found in surface dust a half-mile west of the plant at Sunnyside High School.

Although the company has agreed to expand and upgrade monitoring at school and neighborhood sites, doing so would not be required in the air-quality permit it is seeking.

"That's just unconscionable. This is really dangerous stuff," said Rob Kulakofsky, president of the Center for Environmental Connections, which appealed the permit with the Environmental Justice Action Group.

The county must hold a hearing on the appeal within a month. No date has yet been set.

The company could not be reached for comment.

DAILY DOW JONES

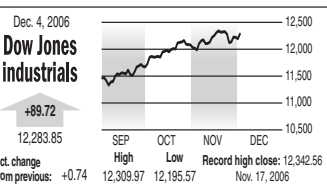


Table with 2 columns: 52-Week High/Low and Name. Lists various market indices like Dow Industrials, Dow Transportation, Dow Utilities, NYSE Composite, Amex Market Value, Nasdaq Composite, S&P 500, S&P MidCap, Russell 2000, and Wilshire 5000.

STOCK EXCHANGE HIGHLIGHTS

Summary table for NYSE (+99.96), AMEX (+9.69), and NASDAQ (+35.18).

Table of stock market gainers and losers for NYSE, AMEX, and NASDAQ. Columns include Name, Last, Chg, %Chg, and Vol.

Table of most active stocks for NYSE, AMEX, and NASDAQ. Columns include Name, Vol (00), Last, and Chg.

Table of money rates for various terms (1-month to 30-year) and currencies like Australia, Brazil, Canada, Euro, Hong Kong, Mexico, and Swiss Franc.

COTTON and CBOT table with columns for Open, High, Low, Last, and Chg.

MERC table listing various commodities like cattle, hogs, and soybeans with their respective prices.

COYRN table listing various commodities like corn, soybeans, and wheat with their respective prices.

NEW YORK (NY) table listing various metals like aluminum, copper, silver, and gold.

Stock Footnotes section providing additional information about the data presented in the tables.

Table of stock footnotes and related information, including a note about the source being The Associated Press.

Advertisement for the San Luis Rio Colorado Project. Text: "We want to hear from you. You are invited to review Western's draft environmental findings on the San Luis Rio Colorado Project, proposed for Yuma County. We need your comments to ensure we've addressed all relevant issues and alternatives."

Map of the San Luis Rio Colorado Project area, showing the proposed transmission line route through Yuma County, Arizona, and the Mexican states of Sonora and Baja California Sur.

Send comments by Dec. 27 to: Mr. John Holt, Environmental Manager, Western Area Power Administration, Desert Southwest Customer Service Region, P.O. Box 6457, Phoenix, AZ 85005.

Advertisement for Amplifon hearing aids, featuring a photo of a woman and child smiling.

Large advertisement for Wal-Mart Supercenter featuring a woman and child. Text: "This holiday season, give yourself the gift of improved hearing! Schedule Your Appointment Today! 50% OFF*"

Advertisement for Amplifon hearing aids, including a photo of a woman and child and text: "Come in today for your FREE no-obligation hearing test from our Licensed Hearing Aid Specialist"

Small text at the bottom right corner providing additional information or contact details.

**Western extends review period for the
Draft Environmental Impact Statement
on the proposed San Luis Rio Colorado Project**

**Western has extended the
review period for the Draft EIS
(DOE/EIS-0395). Send us your
comments on the Draft EIS in
writing by fax, mail, or e-mail.**

**Comments must be
received by
January 10, 2007**

Send us your comments on the Draft EIS in writing by fax, mail, or e-mail to either of the contacts below. For additional information please contact:

Mr. John Holt, Environment Manager
Western Area Power Administration
Desert Southwest Customer Service Region
P.O. Box 6457
Phoenix, AZ 85005
Phone: 602-605-2592
Fax: 602-605-2630
E-mail: holt@wapa.gov

Mr. Mark Wieringa, NEPA Document Manager
Western Area Power Administration
Corporate Service Office
P.O. Box 281213
Lakewood, CO 80228-8213
Phone: 720-962-7448
Fax: 720-962-7263
E-mail: wieringa@wapa.gov

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Phone: 602-605-2592
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E-mail: holt@wapa.gov

Mr. Mark Wieringa, NEPA Document Manager
Western Area Power Administration
Corporate Service Office
P.O. Box 281213
Lakewood, CO 80228-8213
Phone: 720-962-7448
Fax: 720-962-7263
E-mail: wieringa@wapa.gov



Western Area Power Administration
PO Box 281213
Lakewood, CO 80228-8213



Western Area Power Administration
PO Box 281213
Lakewood, CO 80228-8213

APPENDIX D

AGENCY CONSULTATION



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

REPLY TO
ATTENTION OF:

March 1, 2007

Office of the Chief
Regulatory Branch

Western Area Power Administration
C/O Janell Harvey
Arcadis U.S. Inc.
630 Plaza drive, Suite 200
Highlands Ranch, Colorado 80219

File Number: SPL-2007-218-RWF

Dear Ms. Harvey:

Reference is made to your letter, dated January 2007, in which you inquired as to whether or not a Section 404 permit is required from the U.S. Army Corps of Engineers to construct an approximate 26 mile long overhead electrical transmission line that would begin at a proposed power plant site to be constructed south of the Mexico Border and extend to the Arizona Public Service's North Gila Substation located northeast of the City of Yuma, in Yuma County, Arizona. The information provided with your submittal indicates that the proposed overhead electrical transmission line would be constructed in a manner that would span all waters of the United States within the project alignment, including the Gila River.

Based on the information furnished in your letter (referenced above), we have determined that, although your proposed project area does include jurisdictional waters, your proposed project does not discharge dredged or fill material into a water of the United States or an adjacent wetland. Therefore, the project is not subject to our jurisdiction under Section 404 of the Clean Water Act, and no Section 404 permit is required from our office.

The receipt of your letter is appreciated. If you have questions, please contact Ronald Fowler at (602) 640-5385 X226.

Sincerely,

A handwritten signature in cursive script that reads "Cindy Lester".

Cindy Lester, P.E.
Chief, Arizona Section
Regulatory Branch



United States Department of the Interior

U.S. Fish and Wildlife Service

Arizona Ecological Services Field Office

2321 West Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 Fax: (602) 242-2513



In Reply Refer to:

AESO/SE
22410-2006-I-0355

March 26, 2007

Mr. John Holt
Environmental Manager
Desert Southwest Region
Western Area Power Administration
Department of Energy
P.O. Box 6457
Phoenix, Arizona 85005-6457

Re: Informal Consultation for the San Luis Rio Colorado Project, Yuma County, Arizona and Sonora, Mexico

Dear Mr. Holt:

Thank you for your correspondence of February 16, received on February 26, 2007. This letter documents our review of your San Luis Rio Colorado Project, Yuma County, Arizona and Sonora, Mexico, in compliance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*). Your letter concluded that the proposed project may affect, but is not likely to adversely affect, the federally endangered southwestern willow flycatcher (*Empidonax trailii extimus*; flycatcher), Yuma clapper rail (*Rallus longirostris yumanensis*; clapper rail), California brown pelican (*Pelecanus occidentalis californicus*, pelican), and the threatened bald eagle (*Haliaeetus leucocephalus*). We concur with your determinations and provide our rationales below.

PROJECT DESCRIPTION

A complete description of the proposed action is found in your February 16, 2007, letter; Biological Assessment (BA); Draft Environmental Impact Statement (DEIS); and in our notes taken during a telephone conversation with you on March 21, 2007. The U.S. Department of Energy Western Area Power Administration (Western) has received a request from North Branch Resources, LLC (NBR) for an interconnection with a proposed natural gas-fired power plant near San Luis Rio Colorado, Sonora, Mexico. The interconnection would be with Western's Gila Substation east of Yuma, Arizona. NBR proposes that Western construct, operate, and maintain a double-circuit 500,000-volt (500-kV) electric transmission line from the international border to Western's Gila Substation, and on to Arizona Public Service's (APS) North Gila Substation northeast of Yuma. The plans also include modifications to existing substations.

The proposed project will primarily be constructed outside habitat suitable for listed species. The only portion of the project that occurs within listed species habitat, including the flycatcher, clapper rail, pelican, and bald eagle, is where the electric transmission line will cross the Gila River. To avoid impacts to riparian vegetation and listed species habitat, the Gila River will be spanned (i.e., no line support towers will be installed within the 100-year flood plain). To avoid disturbance to many breeding and migratory birds, particularly the clapper rail and flycatcher, all project work near the Gila River will occur from October 1 to February 28. To significantly reduce the risk of bird collisions with the transmission lines, Western will mark the overhead ground wires at the Gila River crossing using the best currently available technology. Additionally, Western will mark the outside set of existing transmission lines (the set of lines between the new lines and the existing outside lines will not be marked because they will be in between two marked sets of lines) crossing the Gila River. Because of the high-voltage of the transmission lines, they will be spaced six to eight feet apart. Additionally, pre-construction surveys will be conducted for all listed, proposed, and candidate or other sensitive species during the appropriate season within one year of construction. If any federally listed, proposed, or candidate species are found, Western will reinitiate consultation with the Fish and Wildlife Service.

CONCLUSION

Southwestern Willow Flycatcher

We concur that the proposed action may affect, but is not likely to adversely affect, the flycatcher for the following reasons:

- No flycatcher habitat will be impacted by the project. Therefore, any indirect effects to the flycatcher, from loss of habitat, are discountable.
- No project work near the Gila River will occur from March 1 to September 30 to avoid impacts to migrating or breeding flycatchers. Therefore, any direct effects, from noise and disturbance associated with project-related activities, to the flycatcher are discountable.
- To significantly reduce the risk of bird collisions, transmission lines will be marked with the best currently available technology, in accordance with the Avian Protection Plan (APP) guidelines jointly developed by the Fish and Wildlife Service in 2005. Therefore, any direct effects to the flycatcher, from collision with transmission lines, are discountable.

Yuma Clapper Rail

- No clapper rail habitat will be impacted by the project. Therefore, any indirect effects to the clapper rail, from loss of habitat, are discountable.
- No project work near the Gila River will occur from March 1 to September 30 to avoid impacts to breeding clapper rails. Therefore, any direct effects, from noise and

disturbance associated with project-related activities during the breeding season, to the clapper rail are discountable.

- Project work may affect the clapper rail during the non-breeding season, however, if clapper rails are found during pre-construction surveys, Western will reinitiate consultation us. Therefore, any direct effects, from noise and disturbance associated with project-related activities during the non-breeding season, to the clapper rail (if they are found to occur in the project area) would be addressed through additional consultation with us.
- To significantly reduce the risk of bird collisions, transmission lines will be marked with the best currently available technology, in accordance with the APP guidelines. Therefore, any direct effects to the clapper rail, from collision with transmission lines, are discountable.

California Brown Pelican

- No pelican habitat will be impacted by the project. Therefore, any indirect effects to the pelican, from loss of habitat, are discountable.
- Because pelicans regularly visit the Yuma area and may fly through the Gila River corridor, precautions to prevent collision will be taken as described in the conclusion sections for the flycatcher and clapper rail. Therefore, any direct effects to the pelican, from collision with transmission lines, are discountable.
- The spacing of the transmission lines exceeds those suggested in the APP guidelines to prevent electrocution to birds. Therefore, any direct effects to the pelican, from electrocution with transmission lines, are discountable.

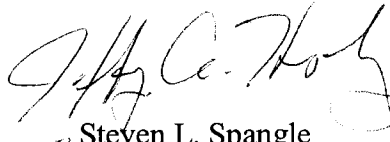
Bald Eagle

- No bald eagle habitat will be impacted by the project. Therefore, any indirect effects to the bald eagle, from loss of habitat, are discountable.
- Bald eagles are known to winter in the Yuma area, but do not occur as breeding birds. Because there is a possibility that eagles may fly through the Gila River corridor, precautions to prevent collision will be taken as described in the conclusion sections for the flycatcher and clapper rail. Therefore, any direct effects to the bald eagle, from collision with transmission lines, are discountable.
- The spacing of the transmission lines exceeds those suggested in the APP guidelines to prevent electrocution to birds. Therefore, any direct effects to the bald eagle, from electrocution with transmission lines, are discountable.

Thank you for your continued coordination. No further section 7 consultation is required for this project at this time. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered. In all future correspondence on this project, please refer to consultation number 22410-2006-I-0355.

Should you require further assistance or if you have any questions, please contact Erin Fernandez at (520) 670-6150 (x238) or Jim Rorabaugh at (602) 242-0524 (x238).

Sincerely,



Steven L. Spangle
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Yuma, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

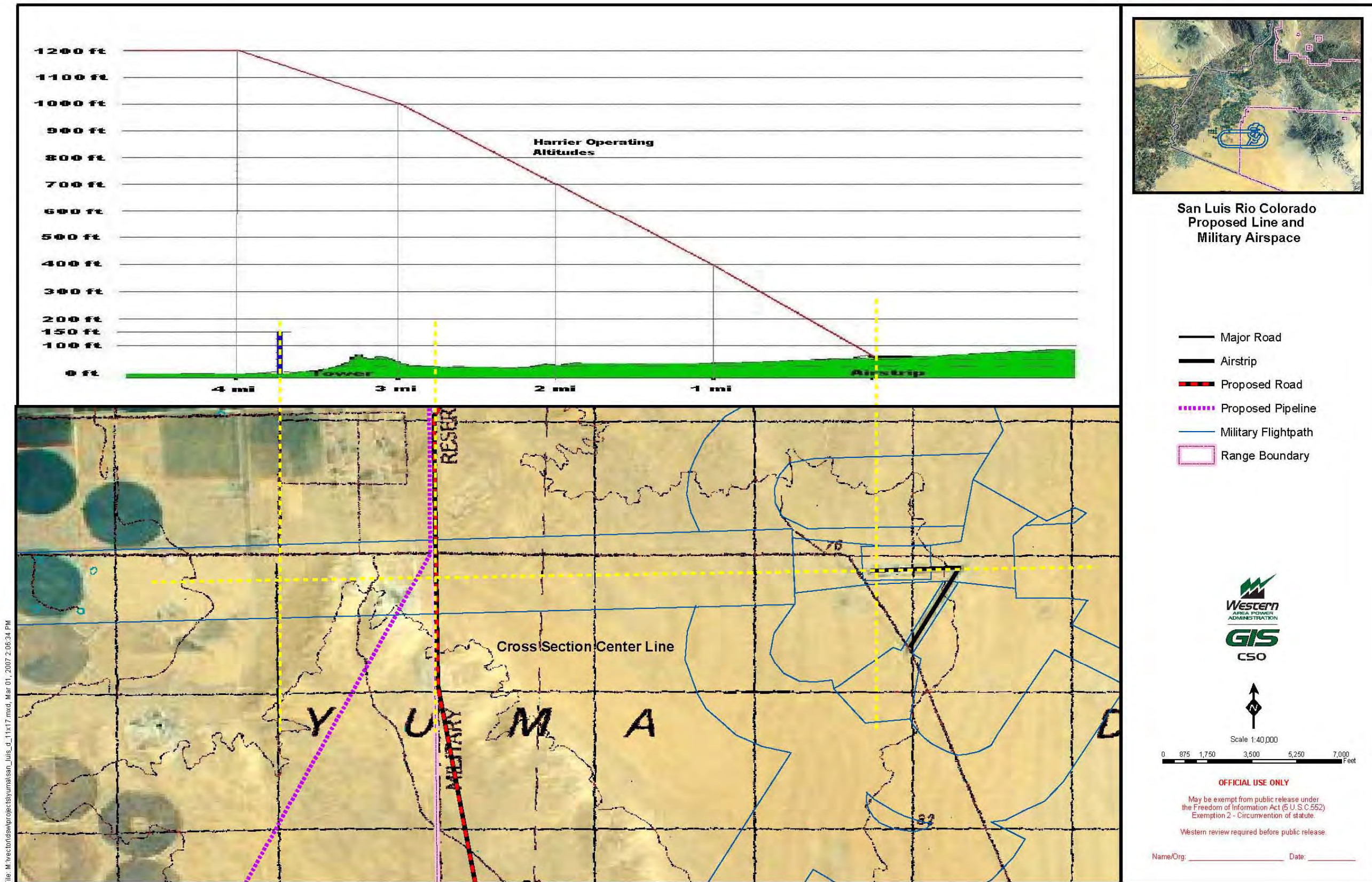


Figure 1. Proposed Transmission Line Plan and Profile near Aux II

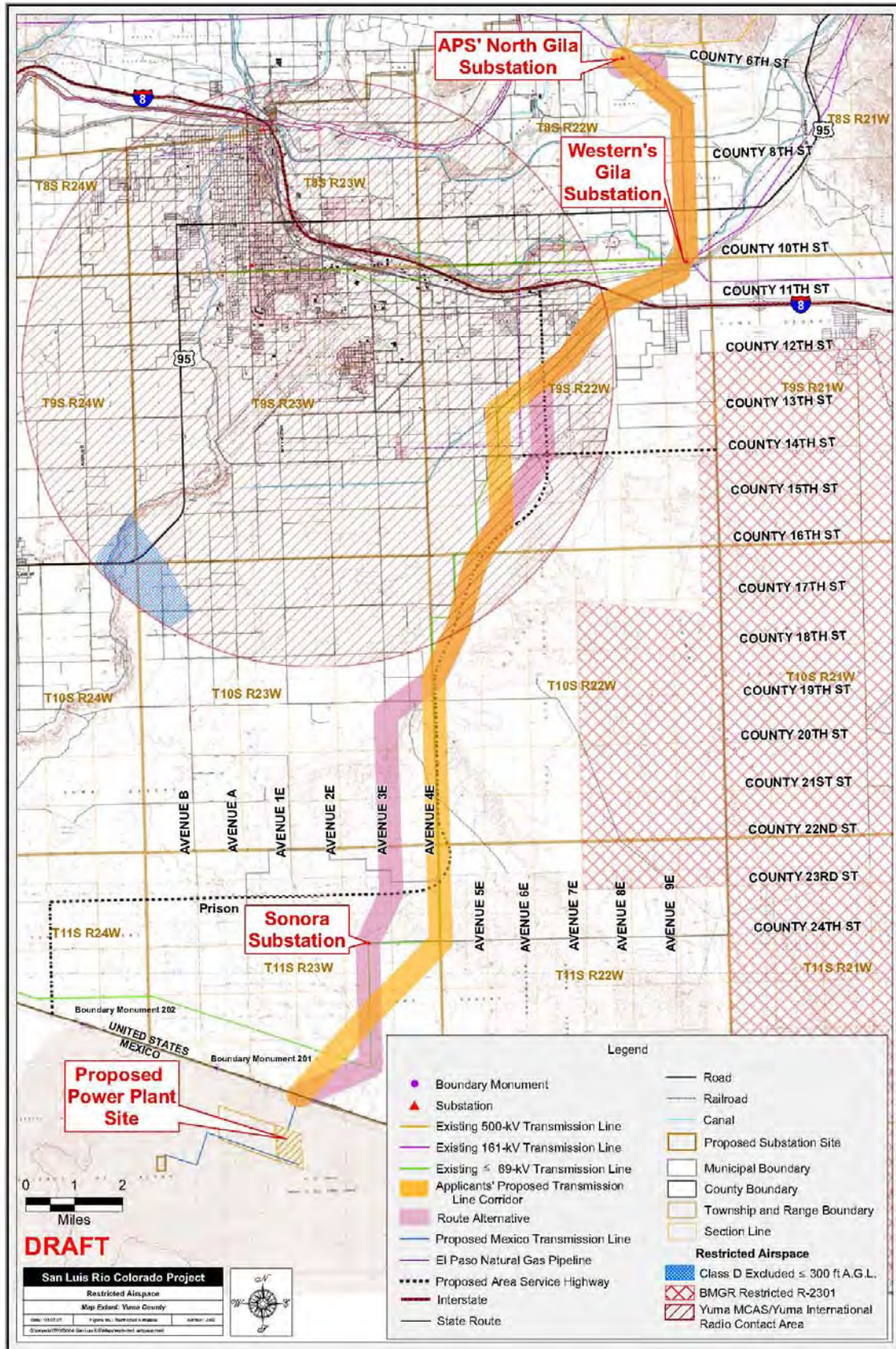


Figure 2. Restricted Airspace

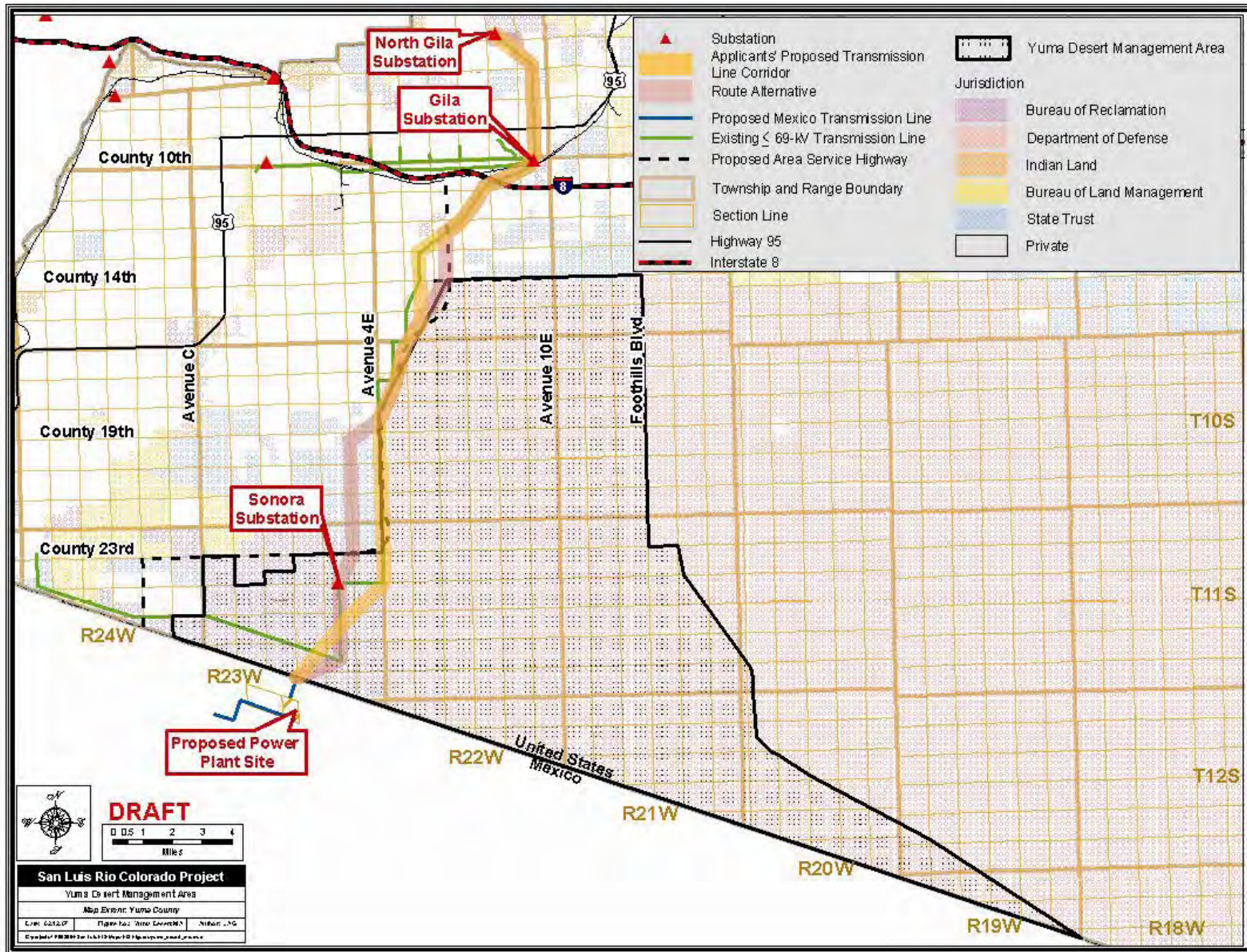


Figure 3. FTHL MA